[File Copy]

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(FILE 'HOME' ENTERED AT 11:04:52 ON 02 OCT 2006)

FILE 'HCAPLUS' ENTERED AT 11:05:11 ON 02 OCT 2006

E US20040266824/PN

L1 1 S US20040266824/PN

SEL RN

FILE 'REGISTRY' ENTERED AT 11:06:30 ON 02 OCT 2006

L2 67 S E1-E67

FILE 'LREGISTRY' ENTERED AT 11:07:28 ON 02 OCT 2006

L3 STR

FILE 'REGISTRY' ENTERED AT 11:16:36 ON 02 OCT 2006

L4 0 S L3

FILE 'LREGISTRY' ENTERED AT 11:23:30 ON 02 OCT 2006

L5 STR L3

FILE 'REGISTRY' ENTERED AT 11:24:39 ON 02 OCT 2006

L6 SCR 1838

L7 SCR 1918 OR 2043 OR 1843

L8 0 S L5 AND L6 NOT L7

L9 SCR 1100

L10 SCR 1992

L11 1 S L5 AND L6 AND L9 AND L10 NOT L7

L12 · SCR 1918 OR 2043

L13 1 S L5 AND L6 AND L9 AND L10 NOT L12

L14 451 S L5 AND L6 AND L9 AND L10 NOT L12 FUL

SAV L14 DAV647/A

L15 16 S L2 AND L14

FILE 'HCAPLUS' ENTERED AT 11:37:49 ON 02 OCT 2006

L16 812 S L15

L17 969 S L14

L18 QUE PHARMAC?/SC,SX

L19 598 S L16 AND L18

L20 703 S L17 AND L18

FILE 'LREGISTRY' ENTERED AT 11:40:03 ON 02 OCT 2006

L21 STR L5

FILE 'REGISTRY' ENTERED AT 11:46:21 ON 02 OCT 2006

L22 24 S L21 SSS SAM SUB=L14

L23 451 S L21 SSS FUL SUB=L14

L24 306 S L23 NOT 6-20/NR

FILE 'HCAPLUS' ENTERED AT 11:51:49 ON 02 OCT 2006

L25 965 S L24

L26 617 S L20 AND 1907-1999/PY,PRY

E CNS/CT

L27 QUE CNS OR CENTRAL (3N) NERVOUS (3N) (SYS OR SYSTEM)

L28 26 S L26 AND L27

FILE 'LREGISTRY' ENTERED AT 12:02:39 ON 02 OCT 2006

L29 STR L21

FILE 'REGISTRY' ENTERED AT 12:07:55 ON 02 OCT 2006

L30 23 S L29 SSS SAM SUB=L14

L31 · · 184 S L24 AND 1/NC

L32 122 S L24 NOT L31

FILE 'HCAPLUS' ENTERED AT 12:11:14 ON 02 OCT 2006

L33 846 S L31

```
169 S L32
L34
L35
             88 S L14/THU
L36
             33 S L35 AND L26
L37
             53 S L36 OR L28
                QUE (DRUG? OR NARCOT?) (2N) (ABUSE# OR ABUSING OR ADDICT?
L38
                E ANOREXIA/CT
                E E3+ALL
           1540 S ANOREXIA/CT
L39
                E BULIMIA/CT
                E E3+ALL
L40
            672 S BULIMIA/CT
                QUE EAT? (2N) (DISORDER? OR DISEASE) OR L39 OR L40
L41
L42
              3 S L26 AND L41
              1 S L26 AND (ANOREXIA? OR BULIMIA?)
L43
             53 S L37 OR L42 OR L43
L44
=> d que stat
L5
                STR
 CH_Ak
             @12 13
                                                           ©7^Ak
```

C\_\_Cy N\_\_Ak @19 20 @21 22

REP G1=(0-4) C
VAR G2=CH2/10/12
VAR G3=CH/17/19
VAR G4=NH/21
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 16
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

#### GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 22

```
STEREO ATTRIBUTES: NONE
L6
               SCR 1838
L9
               SCR 1100
L10
               SCR 1992
L12
               SCR 1918 OR 2043
L14
            451 SEA FILE=REGISTRY SSS FUL L5 AND L6 AND L9 AND L10 NOT
               L12
L17
           969 SEA FILE=HCAPLUS ABB=ON PLU=ON L14
               QUE ABB=ON PLU=ON PHARMAC?/SC,SX
L18
           703 SEA FILE=HCAPLUS ABB=ON PLU=ON L17 AND L18
L20
           617 SEA FILE=HCAPLUS ABB=ON PLU=ON L20 AND 1907-1999/PY,P
L26
L27
               QUE ABB=ON PLU=ON CNS OR CENTRAL (3A) NERVOUS (3A) (SYS
               OR SYSTEM)
L28
            26 SEA FILE=HCAPLUS ABB=ON
                                        PLU=ON L26 AND L27
L35
            88 SEA FILE=HCAPLUS ABB=ON PLU=ON L14/THU
L36
            33 SEA FILE=HCAPLUS ABB=ON PLU=ON L35 AND L26
L37
            53 SEA FILE=HCAPLUS ABB=ON PLU=ON L36 OR L28
           1540 SEA FILE=HCAPLUS ABB=ON PLU=ON ANOREXIA/CT
L39
L40
           672 SEA FILE=HCAPLUS ABB=ON PLU=ON BULIMIA/CT
L41
               QUE ABB=ON PLU=ON EAT? (2A) (DISORDER? OR DISEASE) OR
              . L39 OR L40
L42
             3 SEA FILE=HCAPLUS ABB=ON PLU=ON L26 AND L41
```

L43 .	1 SEA FILE=HCAPLUS ABB=ON	PLU=ON L26 AND (ANOREXIA? OR
L44	BULIMIA?) 53 SEA FILE=HCAPLUS ABB=ON	PLU=ON L37 OR L42 OR L43

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(FILE 'HOME' ENTERED AT 11:04:52 ON 02 OCT 2006)

FILE 'HCAPLUS' ENTERED AT 11:05:11 ON 02 OCT 2006 E US20040266824/PN

L1 1 SEA ABB=ON PLU=ON US20040266824/PN D ALL

SEL RN

FILE 'REGISTRY' ENTERED AT 11:06:30 ON 02 OCT 2006 L2 67 SEA ABB=ON PLU=ON (108-48-5/BI OR 134-64-5/BI OR 324078-19-5/BI OR 324078-32-2/BI OR 324078-36-6/BI OR 324078-40-2/BI OR 324078-41-3/BI OR 324078-52-6/BI OR 3277-89-2/BI OR 530-51-8/BI OR 552-72-7/BI OR 579-21-5/ BI OR 620-08-6/BI OR 650636-96-7/BI OR 6738-06-3/BI OR 748756-00-5/BI OR 752188-91-3/BI OR 758717-83-8/BI OR 758717-85-0/BI OR 758717-86-1/BI OR 818377-08-1/BI OR 818377-09-2/BI OR 818377-10-5/BI OR 818377-11-6/BI OR 818377-12-7/BI OR 818377-13-8/BI OR 818377-14-9/BI OR 818377-15-0/BI OR 818377-16-1/BI OR 818377-17-2/BI OR 818377-18-3/BI OR 818377-19-4/BI OR 818377-20-7/BI OR 818377-21-8/BI OR 818377-22-9/BI OR 818377-23-0/BI OR 818377-24-1/BI OR 818377-25-2/BI OR 818377-26-3/BI OR 818377-27-4/BI OR 818377-28-5/BI OR 818377-29-6/BI OR 818377-30-9/BI OR 818377-31-0/BI OR 818377-32-1/BI OR 818377-33-2/BI OR 818377-34-3/BI OR 818377-35-4/BI OR 818377-36-5/BI OR 818377-37-6/BI OR 818377-38-7/BI OR 818377-39-8/BI OR 818377-40-1/BI OR 818377-41-2/BI OR 818377-42-3/BI OR 818377-43-4/BI OR 818377-44-5/BI OR 818377-45-6/BI OR 818377-46-7/BI OR 818377-47-8/BI OR 818377-48-9/BI OR 818377-49-0/BI OR 818377-50-3/BI OR 818377-51-4/BI OR 818377-52-5/BI OR 818377-53-6/BI OR 90-69-7/BI) D SCAN

FILE 'LREGISTRY' ENTERED AT 11:07:28 ON 02 OCT 2006 STR

FILE 'REGISTRY' ENTERED AT 11:16:36 ON 02 OCT 2006 L4 0 SEA SSS SAM L3

FILE 'LREGISTRY' ENTERED AT 11:23:30 ON 02 OCT 2006 L5 STR L3

FILE 'REGISTRY' ENTERED AT 11:24:39 ON 02 OCT 2006

L6 SCR 1838

L3

T.7

SCR 1918 OR 2043 OR 1843

L8 0 SEA SSS SAM L5 AND L6 NOT L7

L9 SCR 1100

L10 SCR 1992

L11 1 SEA SSS SAM L5 AND L6 AND L9 AND L10 NOT L7 D SCAN

L12 SCR 1918 OR 2043

L13 1 SEA SSS SAM L5 AND L6 AND L9 AND L10 NOT L12 D QUE STAT

L14 451 SEA SSS FUL L5 AND L6 AND L9 AND L10 NOT L12 SAV L14 DAV647/A

L15 16 SEA ABB=ON PLU=ON L2 AND L14 D SCAN

FILE 'HCAPLUS' ENTERED AT 11:37:49 ON 02 OCT 2006

L16 812 SEA ABB=ON PLU=ON L15

L17 969 SEA ABB=ON PLU=ON L14

D SAV

L18 QUE ABB=ON PLU=ON PHARMAC?/SC,SX

		· · <b>,</b> - · ·
L19		598 SEA ABB=ON PLU=ON L16 AND L18
L20		703 SEA ABB=ON PLU=ON L17 AND L18
	FIT.E	'LREGISTRY' ENTERED AT 11:40:03 ON 02 OCT 2006
		D QUE STAT
L21		STR L5
	FILE	'REGISTRY' ENTERED AT 11:46:21 ON 02 OCT 2006
L22		24 SEA SUB=L14 SSS SAM L21
		D SCAN
123		D QUE STAT 451 SEA SUB=L14 SSS FUL L21
		306 SEA ABB=ON PLU=ON L23 NOT 6-20/NR
		'HCAPLUS' ENTERED AT 11:51:49 ON 02 OCT 2006
L25		965 SEA ABB=ON PLU=ON L24
L26		617 SEA ABB=ON PLU=ON L20 AND 1907-1999/PY, PRY
L27		QUE ABB=ON PLU=ON CNS OR CENTRAL (3A) NERVOUS (3A) (SYS
<b>7.0</b> 0		OR SYSTEM)
ΓZβ		26 SEA ABB=ON PLU=ON L26 AND L27
		D QUE STAT
	ETTE	'LREGISTRY' ENTERED AT 12:02:39 ON 02 OCT 2006
L29		STR L21
		'REGISTRY' ENTERED AT 12:07:55 ON 02 OCT 2006
L30		23 SEA SUB=L14 SSS SAM L29 184 SEA ABB=ON PLU=ON L24 AND 1/NC
L31		184 SEA ABB=ON PLU=ON L24 AND 1/NC
L32		122 SEA ABB=ON PLU=ON L24 NOT L31
	ялтя	'HCAPLUS' ENTERED AT 12:11:14 ON 02 OCT 2006
L33		846 SEA ABB=ON PLU=ON L31
		169 SEA ABB=ON PLU=ON L32
T.36		88 SEA ABB=ON PLU=ON L14/THU 33 SEA ABB=ON PLU=ON L35 AND L26
T.37		53 SEA ABB=ON PLU=ON L36 OR L28
L38		QUE ABB=ON PLU=ON (DRUG? OR NARCOT?) (2A) (ABUSE# OR
		ABUSING OR ADDICT? OR TREAT?)
	-	E ANOREXIA/CT
		E E3+ALL 1540 SEA ABB=ON PLU=ON ANOREXIA/CT
L39		
		E BULIMIA/CT
T 40		E E3+ALL
L40 L41		672 SEA ABB=ON PLU=ON BULIMIA/CT
TAT		QUE ABB=ON PLU=ON EAT?(2A)(DISORDER? OR DISEASE) OR L39 OR L40
L42		3 SEA ABB=ON PLU=ON L26 AND L41
		D SCAN
L43		1 SEA ABB=ON PLU=ON L26 AND (ANOREXIA? OR BULIMIA?)
		D SCAN
L44		53 SEA ABB=ON PLU=ON L37 OR L42 OR L43
		D QUE STAT
	FILE	'LREGISTRY' ENTERED AT 12:52:31 ON 02 OCT 2006
L45		STR L29
	FILE	'REGISTRY' ENTERED AT 12:55:45 ON 02 OCT 2006
L46		10 SEA SUB=L14 SSS SAM L45
L47		171 SEA SUB=L14 SSS FUL L45
		SAV L47 DAV647A/A
		'HCAPLUS' ENTERED AT 12:59:04 ON 02 OCT 2006
L48		959 SEA ABB=ON PLU=ON L47
L49		82 SEA ABB=ON PLU=ON L47/THU
L50		80 SEA ABB=ON PLU=ON L49 AND (L18 OR L27 OR L38 OR L41)
L51		29 SEA ABB=ON PLU=ON L50 AND 1907-1999/PY, PRY

			10,010,0						
L52	54 SEA ABB=ON	PLU=ON	L51 OR L44						
L53	25 SEA ABB=ON	PLU=ON	L44 NOT L51						
=> => d mid	s etst 151								

=> => d que stat 151 L5 STR

REP G1=(0-4) C
VAR G2=CH2/10/12
VAR G3=CH/17/19
VAR G4=NH/21
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 16
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

#### GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE SCR 1838 L9 SCR 1100 L10 SCR 1992 L12 SCR 1918 OR 2043 L14451 SEA FILE=REGISTRY SSS FUL L5 AND L6 AND L9 AND L10 NOT L12 L18 QUE ABB=ON PLU=ON PHARMAC?/SC,SX QUE ABB=ON PLU=ON CNS OR CENTRAL (3A) NERVOUS (3A) (SYS L27 OR SYSTEM) L38 QUE ABB=ON PLU=ON (DRUG? OR NARCOT?) (2A) (ABUSE# OR A BUSING OR ADDICT? OR TREAT?) L39 1540 SEA FILE=HCAPLUS ABB=ON PLU=ON ANOREXIA/CT 672 SEA FILE=HCAPLUS ABB=ON PLU=ON BULIMIA/CT L41 QUE ABB=ON PLU=ON EAT? (2A) (DISORDER? OR DISEASE) OR L39 OR L40 L45 STR

C\_Cy N\_G5 019 20 021 22

REP G1=(0-4) C VAR G2=CH2/10/12 VAR G3=CH/17/19 VAR G4=NH/21 VAR G5=ME/ET/N-PR/I-PR NODE ATTRIBUTES:

CONNECT IS E1 RC AT 16 DEFAULT MLEVEL IS ATOM IS UNS AT GGCAT IS UNS AT GGCAT 13 GGCAT IS UNS AT DEFAULT ECLEVEL IS LIMITED ECOUNT IS M5-X6 C AT ECOUNT IS M1-X4 C AT 11 ECOUNT IS M5-X6 C AT 13

ECOUNT IS M1-X4 C AT 18 ECOUNT IS M5-X6 C AT 20

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE

L47 171 SEA FILE=REGISTRY SUB=L14 SSS FUL L45 82 SEA FILE=HCAPLUS ABB=ON PLU=ON L47/THU 80 SEA FILE=HCAPLUS ABB=ON PLU=ON L49 AND (L18 OR L27 L49

L50

OR L38 OR L41)

L51 29 SEA FILE=HCAPLUS ABB=ON PLU=ON L50 AND 1907-1999/PY, P

#### => d 151 1-29 ibib abs hitstr hitind

L51 ANSWER 1 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2006:666025 HCAPLUS Full-text

DOCUMENT NUMBER:

145:152690

TITLE:

Method for inducing crystalline state

transition in pharmaceuticals

INVENTOR(S):

Nakamichi, Kouichi; Izumi, Shougo; Oka,

Masaaki

PATENT ASSIGNEE(S): SOURCE:

Nippon Shinyaju Company, Ltd., Japan U.S., 18 pp., Cont.-in-part of U.S.

5,456,923.

CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA	CENT :	NO.			KIN	D DATE	APPLICATION	NO.	DATE
US	5811	547			Α	19980922	US 1995-416	815	
									1995
							•		0609
CA	2147	270			AA	10040420	< CA 1993-214	17270	
CA	214/	213			MM	19940420	CA 1993-21	17219	1993
									1013
							<		
WO	9408	561			<b>A1</b>	19940428	WO 1993-JP1	469	
									1993
									1013
	₩.	זוע	RD	CA	ът	מא מד. זווו	< NO, NZ, RU, US	•	•
							GB, GR, IE, I		NT.
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AU	9351	607			A1	19940509	AU 1993-516	507	
									1993
									1013
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БP	6650	US			A1	19950802	EP 1993-922	:625	
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	ΕP	6650	09.			B1	200	00216							
		R:			CH,		DK, ES		GB, GI	R, IE,	ΙT,	LI,	LU,	MC	,
	AT	1897		,		E	200	00315	AT	1993-	-9226	25			
															1993
															1013
										<					
	ES	2145	063			Т3	200	00701	ES	1993-	9226	25			
															1993
															1013
						_	400			<					
	US	5456	923			Α	199	51010	US	1993-	1291	33			
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															1013
									•	<					
									US	1993-	12913	33	7	12	
														:	1993
														:	1115
										<					
									JP	1991-	11255	54	7	A.	
															1991
														(	0416
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									WO	1992-	JP470	)	V	-	
															1992
										_				(	0414
										<					

AB This invention has for its object to provide a method of inducing a transition in crystalline state of a crystallizable pharmaceutical with great ease and improved efficiency and uniformity on a high production scale. An extruder is used for inducing a transition from one crystalline state ( $\Delta$ ) to another crystalline state in a crystallizable pharmaceutical. An extruded indomethacin (form  $\alpha$ ) was converted to an amorphous form.

IT 134-63-4, Lobeline hydrochloride

RL: PRP (Properties); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

(method for inducing crystalline state transition in pharmaceuticals)

RN 134-63-4 HCAPLUS

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

● HCl

```
ICM C07D209-32
     ICS C07D223-24
INCL 540589000; 548500000; 564045000; 564213000
    63-6 (Pharmaceuticals)
    Allergy inhibitors
    Analgesics
    Anesthetics
    Anthelmintics
    Antiarrhythmics
    Antibiotics
    Anticoagulants
    Anticonvulsants
    Antidiabetic agents
    Antidiarrheals
    Antihypertensives
    Antimicrobial agents
    Antiparkinsonian agents
    Antipyretics
    Antitumor agents
    Antitussives
    Antiviral agents
    Bronchodilators
    Cardiotonics
    Cardiovascular agents
      Central nervous system agents
    Choleretics
    Diuretics
    Expectorants
    Gastrointestinal agents
    Hemostatics
    Laxatives
    Liver, disease
    Narcotics
    Nervous system stimulants
    Polymorphism (crystal)
    Psychotropics
    Structural phase transition
    Tuberculostatics
    Urinary system
    Vasoconstrictors
    Vasodilators
        (method for inducing crystalline state transition in
       pharmaceuticals)
IT
    50-02-2, Dexamethasone 50-03-3, Hydrocortisone acetate
    50-04-4, Cortisone acetate 50-06-6, Phenobarbital, biological
    studies 50-11-3, Metharbital 50-14-6, Ergocalciferol
    50-18-0, Cyclophosphamide 50-23-7, Hydrocortisone 50-24-8,
    Prednisolone 50-27-1, Estriol 50-33-9, Phenylbutazone,
    biological studies 50-34-0, Propantheline bromide 50-41-9,
                        50-44-2, Mercaptopurine 50-50-0, Estradiol
    Clomifene citrate
               50-53-3, biological studies 50-54-4, Quinidine
    benzoate
    sulfate
              50-55-5, Reserpine 50-59-9, Cefaloridine
    Aspirin
              50-81-7, Ascorbic acid, biological studies
    Ephedrine hydrochloride 51-05-8, Procaine hydrochloride
    51-21-8, Fluorouracil 51-30-9, Isoprenaline hydrochloride
    51-41-2, Norepinephrine 51-43-4, Epinephrine 51-52-5,
    Propylthiouracil
                      51-57-0, Methamphetamine hydrochloride
    51-77-4, Gefarnate 52-01-7, Spironolactone 52-21-1,
    Prednisolone acetate
                          52-24-4, Thiotepa
                                             52-26-6, Morphine
    hydrochloride 52-28-8, Codeine phosphate 52-49-3,
                                  52-67-5, Penicillamine
    Trihexyphenidyl hydrochloride
    Haloperidol 52-90-4, L-Cysteine, biological studies
              53-21-4, Cocaine hydrochloride 53-36-1,
    Mitotane
    Methylprednisolone acetate 53-86-1, Indomethacin 54-21-7,
                       54-31-9, Furosemide
    Sodium salicylate
                                            54-36-4, Metyrapone
    54-47-7, Pyridoxal phosphate
                                  54-85-3, Isoniazide
                                                        55-03-8,
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55-06-1, Liothyronine sodium 55-31-2, Levothyroxine sodium Epinephrine hydrochloride 55-48-1, Atropine sulfate 55-97-0, 55-98-1, Busulfan 56-29-1, Hexobarbital Hexamethonium bromide 56-75-7, Chloramphenicol 56-85-9, L-Glutamine, biological 57-43-2, Amobarbital 57-44-3, Barbital 57-63-6, Ethynylestradiol 57-66-9, Probenecid 57-83-0, Progesterone, biological studies 57-85-2, Testosterone propionate 57-94-3, Tubocurarine chloride 57-96-5, Sulfinpyrazone 58-18-4. 58-25-3, Chlorodiazepoxide Methyltestosterone Desipramine hydrochloride 58-32-2, Dipyridamole Promethazine hydrochloride 58-38-8 58-39-9, Perphenazine 58-54-8, Etacrynic acid 58-55-9, Theophylline, biological 58-56-0, Pyridoxine hydrochloride 58-71-9 studies Diphenhydramine, tannates 58-85-5, Biotin 58-93-5, Hydrochlorothiazide 58-95-7, Tocopherol acetate 59-05-2, Methotrexate 59-30-3, Folic acid, biological studies 59-58-5, Prosultiamine 59-66-5, Acetazolamide 59-67-6, Nicotinic acid, biological studies 59-92-7, Levodopa, biological studies 59-97-2, Tolazoline hydrochloride 59-99-4, Neostigmine 60-02-6, Guanethidine sulfate 60-31-1, Acetylcholine chloride 60-54-8, Tetracycline 60-56-0, Thiamazole 60-99-1, Levomepromazine 61-12-1, Dibucaine hydrochloride 61-16-5, Methoxamine hydrochloride 61-25-6, Papaverine hydrochloride 61-56-3, Sultiame 61-68-7, Mefenamic acid 61-76-7, Phenylephrine hydrochloride 62-31-7, Dopamine hydrochloride 62-33-9, Calcium disodium edetate 62-44-2, Phenacetin Nandrolone phenylpropionate 64-31-3, Morphine sulfate 64-65-3, Bemegride 64-73-3, Demethylchlorotetracycline hydrochloride 64-77-7, Tolbutamide 64-75-5, Tetracycline hydrochloride 64-86-8, Colchicine 65-28-1, Phentolamine mesylate 65-45-2, Salicylamide 67-03-8, Thiamine hydrochloride 67-16-3, Thiamine disulfide 67-78-7, Triamcinolone diacetate 67-92-5, Dicycloverin hydrochloride 67-96-9, Dihydrotachysterol 68-19-9, Cyanocobalamine 68-22-4, Norethisterone 68-41-7, Cycloserine 68-89-3, Sulpyrine 68-91-7, Trimetaphan camsilate 69-23-8, Fluphenazine 69-53-4, Ampicillin 69-81-8, Carbazochrome 70-18-8, Glutathione, biological studies 71-27-2, Suxamethonium chloride 71-58-9, Medroxyprogesterone acetate 71-63-6, Digitoxin 71-73-8, Thiopental sodium 71-78-3, Pipradrol hydrochloride 71-82-9, Levallorphan tartrate 72-33-3, Mestranol 73-49-4, Quinethazone 73-78-9, Lidocaine hydrochloride 76-25-5, Triamcinolone acetonide 76-43-7, Fluoxymesterone 76-74-4, Pentobarbital 76-90-4, Mepenzolate bromide 77-36-1, Chlorothalidone 77-67-8, Ethosuximide 78-11-5, Pentaerythrityl tetranitrate 79-64-1, Dimethisterone 79-81-2, Retinol palmitate 80-08-0, Diaphenyl sulfone 80-50-2, Anisotropine methobromide 80-77-3, Chlormezanone 80-92-2, Pregnanediol 83-43-2, 81-23-2, Dehydrocholic acid Methylprednisolone 83-88-5, Riboflavin, biological studies 84-22-0, Tetryzoline 84-36-6, Syrosingopine 84-80-0, Phytonadione 86-35-1, Ethotoin 86-74-8, Chlorophenesin 87-33-2, Isosorbide dinitrate 90-22-2, Valethamate carbamate 90-33-5, Hymecromone 93-14-1, Guaifenesin 94-09-7, bromide Ethyl aminobenzoate 94-20-2, Chloropropamide 94-63-3, Pralidoxime iodide 95-25-0, Chlorzoxazone 97-18-7, Bithionol 98-92-0, Nicotinamide 98-96-4, Pyrazinamide 99-26-3, Bismuth subgallate 100-97-0, Hexamine, biological studies 101-26-8, Pyridostigmine bromide 103-90-2, Acetaminophen 107-35-7, 2-Aminoethanesulfonic acid 113-07-5, Doxapram hydrochloride 113-38-2, Estradiol dipropionate 113-52-0, Imipramine hydrochloride 113-59-7, Chlorprothixene 113-92-8 113-98-4, Benzylpenicillin potassium 114-49-8, Scopolamine hydrobromide 114-85-2, Betanidine sulfate 115-79-7, Ambenonium chloride 119-41-5, Efloxate 119-48-2, Dimorpholamine 122-11-2, Sulfadimethoxine 124-94-7, Triamcinolone 125-02-0, Prednisolone sodium phosphate 125-04-2, Hydrocortisone sodium succinate 125-30-4, Ethylmorphine hydrochloride 125-33-7,

Primidone 125-52-0, Oxyphencyclimine hydrochloride 126-07-8, Griseofulvin 126-27-2, Oxethazaine 127-07-1, Hydroxycarbamide 127-47-9 127-48-0, Trimethadione 127-69-5, Sulfisoxazole 128-13-2, Ursodesoxycholic acid 128-62-1, Noscapine Ergometrine Maleate 129-77-1, Piperidolate hydrochloride 130-40-5, Riboflavin sodium phosphate 130-61-0, Thioridazine hydrochloride 132-18-3, Diphenylpyraline teoclate Benzydamine hydrochloride 132-93-4, Pheneticillin potassium 132-98-9, Phenoxymethylpenicillin potassium 133-67-5, Trichloromethiazide 134-63-4, Lobeline hydrochloride 135-09-1, Hydroflumethiazide 136-47-0, Tetracaine hydrochloride 138-14-7, Deferoxamine mesylate 142-47-2, Sodium glutamate 144-82-1, Sulfamethizole 146-22-5, Nitrazepam 147-24-0, Asdrin 147-94-4, Cytarabine 148-82-3, Melphalan 149-64-4, Butylscopolamine bromide 151-73-5, Betamethasone sodium phosphate 152-11-4, Verapamil hydrochloride Sulfamethopyrazine 152-62-5, Dydrogesterone 153-00-4, Metenolone 153-87-7, Oxypertine 154-23-4, Cianidanol 154-87-0, Cocarboxylase 298-46-4, Carbamazepine 298-Metenolone 298-59-9, Methyl phenidate hydrochloride 299-39-8, Sparteine sulfate 299-95-6, Isoproterenol sulfate 302-22-7 302-70-5, Nitrogen mustard N-oxide hydrochloride 303-98-0, Ubidecarenone 304-20-1, Hydralazine hydrochloride 309-43-3, Secobarbital sodium 315-30-0, Allopurinol RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (method for inducing crystalline state transition in

pharmaceuticals)

REFERENCE COUNT:

10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 2 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2006:425892 · HCAPLUS Full-text

DOCUMENT NUMBER:

144:474902

TITLE:

Apomorphine for the treatment of organic

erectile dysfunction in males

INVENTOR(S):

Ruff, Dustin D.; Perdok, Renee J.; Kling,

PATENT ASSIGNEE(S):

SOURCE:

Abbott Laboratories, USA Aust. Pat. Appl., 22 pp.

CODEN: AUXXCM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
AU 2005201509	A1	20050505	AU 2005-201509	2005 0411
PRIORITY APPLN. INFO.:			< AU 2000-21758 A3	1999 1213

A method of treating organic erectile dysfunction in a male comprises administering AΒ apomorphine or its salt ester, or prodrug. Thus, sublingual tablets contained apomorphine-HCl 2.00, mannitol 66.67, ascorbic acid 3.33, citric acid 2.00, Avicel PH 10215.00, Methocel E4 10.00, aspartame 0.67, and Mg stearate 0.33 weight%.

IT 134-64-5, Lobeline sulfate

RL: THU (Therapeutic use); BIOL (Biological study); USES

(apomorphine for treatment of organic erectile dysfunction in males)

RN 134-64-5 HCAPLUS

CN Ethanone, 2-[(2R)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl-, sulfate (2:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 7664-93-9 CMF H2 O4 S

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CM 2

CRN 90-69-7 CMF C22 H27 N O2

Absolute stereochemistry.

IC ICM A61K031-485 ICS A61P015-10

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1

ΙT 50-53-3, Chlorpromazine, biological studies 51-34-3, Scopolamine 54-11-5, Nicotine 58-38-8, Prochlorperazine 84-04-8, Pipamazine 129-74-8, Buclizine hydrochloride 134-64-5, Lobeline sulfate 138-56-7, Trimethobenzamide 303-25-3, Cyclizine hydrochloride 364-62-5, Metoclopramide 523-87-5, Dimenhydrinate 1420-55-9, Thiethylperazine 3254-89-5, Diphenidol hydrochloride 14008-44-7, Metopimazine 17297-82-4, 57808-66-9, Domperidone Oxypendyl hydrochloride 99614-02-5, Ondansetron

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(apomorphine for treatment of organic erectile dysfunction in males)

L51 ANSWER 3 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:1311702 HCAPLUS Full-text

DOCUMENT NUMBER:

144:57525

TITLE:

Coated vaginal devices for vaginal delivery of

therapeutically effective and/or

health-promoting agents

INVENTOR(S):

Wilson, Michelle; Desai, Kishorkumar J.; Pauletti, Giovanni M.; Antoon, Mitchell K.;

Clendening, Chris E.

PATENT ASSIGNEE(S):

SOURCE:

U.S. Pat. Appl. Publ., 40 pp., Cont.-in-part

of U.S. Ser. No. 126,863

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE: English FAMILY ACC. NUM. COUNT: 11
PATENT INFORMATION:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
 US 2005276836	<b>A1</b>	20051215	US 2005-180076	2005
US 6197327	В1	20010306	< US 1998-79897	0712 1998
us 6086909	A	20000711	< US 1999-249963	0515
US 6572874	в1	20030603	< US 2000-626025	0212
NZ 508130		20020301	< NZ 2000-508130	2000 0727
			<	2000 1113
AU 765269 .	В2	20030911	AU 2001-54192	2001
US 2003049302 US 6982091	A1 B2	20030313	us 2002-226667	2002 0821
US 2004005345	. <b>A1</b>	20040108	US 2003-349029	2003 0122
US 6905701 US 2004043071	B2 A1	20050614 20040304	< US 2003-600849	2003
US 2005249774	A1	20051110	US 2005-126863	0620 2005
us 2006002966	A1	20060105	< US 2005-208209	0510 2005
PRIORITY APPLN. INFO.:			US 1997-49325P F	0818 1997 0611
			< US 1998-79897	.2 1998
			< US 1999-249963 A	0515 12 1999 0212
			< US 2000-626025 A	2000
			US 2002-226667 A	0727

		2002 0821
US 2003-349029	A2	2003 0122
US 2003-600849	A2	2003 0620
US 2004-587454P	P	2004 0712
us 2005-126863	A2	2005 0510
AU 1998-76976	А3	1998 0610
< NZ 1998-502120	A1	1998 0610
< US 1999-146218P	P	1999 0728
< US 2001-315877P	P	2001 0829
US 2002-390748P	P	2002 0621

AB Disclosed is a vaginal device for delivering therapeutical and/or health-promoting agents. The vaginal device partly or completely coated by, covered by or combined with a coating or covering comprising a film, foam, strip, cap, cup or particles. The coating of the device comprises a mucoadhesive composition comprising a therapeutical and/or health-promoting agent. For example, sumatriptan vaginal suppository were prepared from Suppocire AS2X, hydroxypropyl Me cellulose as a mucoadhesive agent, and Transcutol as a permeation enhancer.

IT 90-69-7, Lobeline

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(coated vaginal devices for vaginal delivery of therapeutically effective and/or health-promoting agents)

RN 90-69-7 HCAPLUS

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

INCL 424422000

C 63-6 (Pharmaceuticals)

50-06-6, Phenobarbital, biological IT 50-02-2, Dexamethasone 50-21-5, Lactic acid, biological studies 50-23-7, Hydrocortisone 50-33-9, Phenylbutazone, biological studies 50-53-3, Chlorpromazine, biological studies 50-56-6, Oxytocin, biological studies 50-78-2, Acetylsalicylic acid 50-81-7, Ascorbic acid, biological studies 51-55-8, Atropine, biological 52-53-9, Verapamil 51-92-3, Tetramethylammonium 55-63-0, Nitroglycerin 53-86-1, Indomethacin 57-22-7, Vincristine 57-27-2, Morphine, biological studies 57-42-1, Meperidine 58-08-2, Caffeine, biological studies 58-33-3, Promethazine hydrochloride 58-38-8, Prochlorperazine 58-85-5, 59-02-9 59-05-2, Methotrexate 59-30-3, Folic acid, Biotin biological studies 59-43-8, Thiamine, biological studies 59-46-1, Procain 59-67-6, Niacin, biological studies 60-87-7. Promethazine 62-49-7, Choline 63-75-2, Arecoline 64-19-7, Acetic acid, biological studies 65-23-6, Pyridoxine 67-68-5, Dimethyl sulfoxide, biological studies 67-97-0, Cholecalciferol 68-04-2, Sodium citrate 68-19-9, Cyanocobalamine 76-99-3, Methadone 77-26-9, Butalbital 77-52-1, Ursolic acid Citric acid, biological studies 79-83-4, D-Pantothenic acid 83-88-5, 80-56-8,  $\alpha$ -Pinene 82-92-8, Cyclizine Riboflavin, biological studies 86-54-4, Hydralazine Isosorbide dinitrate 89-78-1, Menthol 90-69-7, Lobeline 91-40-7, Fenamic acid 99-66-1, Valproic acid 103-90-2, Acetaminophen 111-90-0 113-15-5, Ergotamine 114-07-8, Erythromycin 127-09-3, Sodium acetate  $\beta$ -Pinene 144-55-8, Sodium bicarbonate, biological studies 148-82-3, Melphalan 149-91-7, Gallic acid, biological studies 151-21-3, Sodium lauryl sulfate, biological studies 154-42-7, Thioguanine 302-79-4, Tretinoin 305-03-3, Chlorambucil 331-39-5, Caffeic acid 364-62-5, Metoclopramide Capsaicin 439-14-5, Diazepam 443-48-1, Metronidazole 465-42-9, Capsanthin 469-21-6, Doxylamine 470-82-6, 1,8-Cineole 479-91-4, Casticin 479-98-1, Aucubin 497-19-8, Sodium carbonate, biological studies 499-04-7, Arecaine 503-01-5, Isometheptene 504-24-5, 4-Aminopyridine 506-26-3, γ-Linolenic acid 511-12-6, Dihydroergotamine 522-51-0, Dequalinium chloride 548-73-2, Droperidol 552-94-3, Salsalate 555-30-6, Methyldopa 564-25-0, Doxycycline 586-06-1, nol 644-62-2 645-05-6, Altretamine 652-67-671-16-9, Procarbazine 768-94-5, Amantadine Metaproterenol 652 - 67 - 5, Isosorbide 1156-19-0, Tolazamide 1330-80-9, Propylene glycol oleate 1397-89-3, Amphotericin B 1400-61-9, Nystatin 1415-73-2, Aloin 1951-25-3, Amiodarone 1972-08-3, Dronabinol 2022-85-7, Flucytosine 2751-09-9, Troleandomycin 2809-21-4 2854-38-8, Ergostine 2998-57-4, Estramustine 3056-17-5, Stavudine 3681-93-4, Vitexin 3930-20-9, Sotalol 4373-41-5, Maslinic acid 4547-24-4, Corosolic acid 4697-36-3, Carbenicillin 5051-62-7, 5104-49-4, Flurbiprofen 5300-03-8, Alitretinoin Guanabenz 5373-11-5, Luteolin 7-O-glucoside 6926-08-5, Harpagide. 7232-21-5, Metoclopramide hydrochloride 7235-40-7, β--Carotene 7439-89-6, Iron, biological studies 7439-95-4, Magnesium, biological studies 7439-96-5, Manganese, biological studies 7440-09-7, Potassium, biological studies 7440-47-3, Chromium, biological studies 7440-66-6, Zinc, 7440-70-2, Calcium, biological studies biological studies 7481-89-2, Zalcitabine 7632-05-5, Sodium phosphate 7782-49-2, Selenium, biological studies 8025-81-8, Spiramycin 9000-69-5, Pectin 9002-64-6, Parathyroid hormone 9002-88-4, Polyethylene 9002-89-5, Polyvinyl alcohol 9002-92-0, Polyoxyethylene lauryl ether 9003-07-0, Polypropylene 9003-39-8, Polyvinylpyrrolidone 9003-97-8, Polycarbophil 9004-10-8, Insulin, biological studies 9005-38-3, Sodium alginate 9005-37-2, Propylene glycol alginate 9005-65-6, Tween 80 9007-12-9, Calcitonin 9010-79-1,

Ethylene-propylene copolymer 9012-76-4, Chitosan 10238-21-8, 10540-29-1, Tamoxifen 10596-23-3, Clodronate 11000-17-2, Vasopressin 11027-63-7, Agnoside 11076-50-9, 12629-01-5, Human growth hormone 12650-69-0, Tetramycin 13010-47-4, Lomustine 13392-28-4, Rimantadine Mupirocin 13710-19-5, Tolfenamic acid 15307-79-6, Diclofenac sodium Cisplatin 15686-71-2, 16051-77-7, Isosorbide 15307-86-5, Diclofenac 15663-27-1, Cisplatin 15687-27-1, Ibuprofen Cephalexin 18323-44-9, Clindamycin 18559-94-9, Salbutamol mononitrate 18642-44-9, Actein 19216-56-9, Prazosin 19236-22-7, Dinitrate 21256-18-8, Oxaprozin 21829-25-4, Nifedipine 22071-15-4, 22204-53-1, Naproxen 22494-42-4, Diflunisal Ketoprofen 22916-47-8, Miconazole 23031-25-6, Terbutaline 23155-02-4, 23214-92-8, Doxorubicin 23593-75-1, Clotrimazole Phosphomycin 24345-16-2, Apamin 25322-68-3, Polyethylene glycol 26171-23-3, Tolmetin 26563-68-8, 3-epi-Maslinic acid 26652-09-5, Ritodrine 27220-47-9, Econazole 27523-40-6, Isoconazole 28371-16-6, Aloin B 28608-75-5, Orientin 29110-47-2, Guanfacine 29342-05-0, Ciclopirox 29679-58-1, Fenoprofen 30516-87-1, Zidovudine 30861-27-9, Aloeresin B 32619-42-4, Oleuropein 33069-62-4, Paclitaxel 33419-42-0, Etoposide 34391-04-3, Levalbuterol 35846-53-8, Maytansine 36322-90-4, Piroxicam 36791-04-5, Ribavirin 38194-50-2, Sulindac 38304-91-5, Minoxidil 38677-81-5, Pirbuterol 38821-53-3, Cephradine 38953-85-4, Isovitexin 39809-25-1, Penciclovir 40391-99-9 41340-25-4, Etodolac 42399-41-7, Diltiazem 42408-82-2, Butorphanol 42924-53-8, Nabumetone 50370-12-2, Cefadroxil 50656-65-0, Rotundifuran 50972-17-3, Bacampicillin 51022-71-0, Nabilone 51803-78-2, Nimesulide 53155-25-2, Euscaphic acid 54187-04-1, Rilmenidine 55268-75-2, Cefuroxime 55985-32-5, Nicardipine 57186-25-1, Paxilline 57808-66-9, Domperidone 58799-57-8, Suppocire AS2X 59209-40-4, Afloxan 59277-89-3, Acyclovir 59804-37-4, Tenoxicam 60142-96-3, Gabapentin 61263-49-8, Vitexilactone 61318-90-9, Sulconazole 62013 exilactone 61318-90-9, Sulconazole 63590-64-7, Terazosin 63612-50-0, 62013-04-1, 63612-50-0, Nilutamide Dirithromycin 64104-39-8, Suppocire AM 64211-45-6, Oxiconazole 64706-54-3, 64872-76-0, Butoconazole 65277-42-1, Ketoconazole Bepridil 65472-88-0, Naftifine 65899-73-2, Tioconazole 66085-59-4, Nimodipine 66376-36-1, Alendronate 67915-31-5, Terconazole 68379-02-2, Clofilium RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (coated vaginal devices for vaginal delivery of therapeutically

effective and/or health-promoting agents)

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L51 ANSWER 4 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                        2005:2187 HCAPLUS Full-text
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DOCUMENT NUMBER:

142:93692

TITLE:

Preparation of 2,6-disubstituted piperidines

and piperazines for the treatment of

INVENTOR(S):

CNS diseases Crooks, Peter A.; Dwoskin, Linda; Jones,

Marlon D.; Miller, Dennis Keith; Norholm, Seth Davin; Zheng, Guangrong; Krishamurthy, Sairam

PATENT ASSIGNEE(S):

USA

SOURCE:

U.S. Pat. Appl. Publ., 27 pp., Cont.-in-part

of U.S. Ser. No. 231,156.

CODEN: USXXCO

DOCUMENT TYPE:

Patent English

LANGUAGE: FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004266824	<b>A1</b>	20041230	US 2004-813647	

						2004 0331
				<		0331
US 6455543	В1	20020924	US	2000-628557		
						2000
				•		0728
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US 2003100547	A1	20030529	US	2002-231156		
						2002
						0830
*** 6042177		00050010		<		
US 6943177	B2	20050913	770	1000 1461445	_	
PRIORITY APPLN. INFO.:			U.S	1999-146144P	P	1999
						0730
				<		0730
		•	US	2000-628557	А3	
						2000
						0728
			US	2002-231156	A2	
						2002
						0830

OTHER SOURCE(S):

MARPAT 142:93692

R<sup>4</sup>

Title compds. represented by the formula I [wherein X1 = CH2; Y1 = CHOH or C=0; X2-Y2 = cis/trans-carbon-carbon double bond; Z = CH; R1, R4 = independently H or alkyl; R2, R3 = independently (un) saturated hydrocarbon ring or (un) substituted benzene; n = 0-3; and pharmaceutically effective salts thereof, including resolved diastereomers, enantiomers thereof] were prepared For example, lobelanidine was stirred overnight in 85% H3PO4 at 60° to give 78.6% cis-2,6-di-trans-styrylpiperidine. I showed activity in [3H]nicotine binding assay, [3H]MLA binding assay, inhibition of nicotine-evoked 86Rb+ efflux assay, and etc. Thus, I are useful to treat diseases of the central nervous system, drug

abuse, and withdrawal therefrom as well as treating eating disorders (no data).
IT 324078-36-6P 324078-52-6P 752188-91-3P
758717-83-8P 818377-08-1P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PACT (Posstant or reagent); USES

study); PREP (Preparation); RACT (Reactant or reagent); USES
(Uses)

(preparation of 2,6-disubstituted piperidines and piperazines for the **treatment** of **drug abuse** and withdrawal, **eating disorders**, and

CNS diseases)

RN 324078-36-6 HCAPLUS

CN Ethanone, 2-[(2R,6S)-1-methyl-6-[(1E)-2-phenylethenyl]-2-piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

RN 324078-52-6 HCAPLUS CN 2-Piperidineethanol, 1-methyl- $\alpha$ -phenyl-6-[(1E)-2-phenylethenyl]-, ( $\alpha$ S, 2R, 6S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

Absolute stereochemistry. Rotation (-).

RN 758717-83-8 HCAPLUS CN 2-Piperidineethanol, 1-methyl- $\alpha$ -phenyl-6-[(1E)-2-phenylethenyl]-, ( $\alpha$ R, 2R, 6S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

RN 818377-08-1 HCAPLUS

CN 2-Piperidineethanol, 1-methyl- $\alpha$ -phenyl-6-[(1E)-2-phenylethenyl]-, ( $\alpha$ S, 2S, 6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

90-69-7P 552-72-7P 579-21-5P IT 324078-32-2P 324078-40-2P 324078-41-3P 748756-00-5P 818377-09-2P 818377-10-5P 818377-11-6P RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of 2,6-disubstituted piperidines and piperazines for the treatment of drug abuse and withdrawal, eating disorders, and CNS diseases) RN 90-69-7 HCAPLUS CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Relative stereochemistry.

RN 579-21-5 HCAPLUS
CN Ethanone, 2,2'-(1-methyl-2,6-piperidinediyl)bis[1-phenyl-,
(2R,6S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 324078-32-2 HCAPLUS
CN Ethanone, 2-[(2R,6S)-1-methyl-6-[(2S)-2-[[(4methylphenyl)sulfonyl]oxy]-2-phenylethyl]-2-piperidinyl]-1-phenyl(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 324078-40-2 HCAPLUS

CN 2-Piperidineethanol, 1-methyl- $\alpha$ -phenyl-6-[(1E)-2-phenylethenyl]-, (2R,6S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

RN 324078-41-3 HCAPLUS

CN 2-Piperidineethanol, 1-methyl- $\alpha$ -phenyl-6-(2-phenylethyl)-, (2R,6S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 748756-00-5 HCAPLUS

CN 2-Piperidineethanol, 1-methyl- $\alpha$ -phenyl-6-(2-phenylethyl)-, ( $\alpha$ R, 2R, 6S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 818377-09-2 HCAPLUS CN 2-Piperidineethanol, 1-methyl- $\alpha$ -phenyl-6-[(1E)-2-phenylethenyl]-, ( $\alpha$ R, 2S, 6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

RN 818377-10-5 HCAPLUS CN 2-Piperidineethanol, 1-methyl- $\alpha$ -phenyl-6-(2-phenylethyl)-, ( $\alpha$ S,2R,6S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 818377-11-6 HCAPLUS CN 2-Piperidineethanol, 1-methyl- $\alpha$ -phenyl-6-(2-phenylethyl)-, ( $\alpha$ R,2S,6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IC ICM A61K031-445
 ICS C07D211-20
INCL 514317000; 546236000; 546237000
CC 27-16 (Heterocyclic Compounds (One Hetero Atom))
 Section cross-reference(s): 1
ST piperidine piperazine prepn CNS drug

```
abuse eating disorder treatment
TΨ
    Drugs of abuse
        (abuse of; preparation of 2,6-disubstituted piperidines
        and piperazines for the treatment of drug.
        abuse and withdrawal, eating
        disorders, and CNS diseases)
ΤT
     Central nervous system, disease
    Drug withdrawal
      Eating disorders
        (preparation of 2,6-disubstituted piperidines and piperazines for
       the treatment of drug abuse and
       withdrawal, eating disorders, and
       CNS diseases)
TT
     324078-36-6P 324078-52-6P 752188-91-3P
     758717-83-8P
                  758717-85-0P
                                  758717-86-1P
    818377-08-1P
                   818377-12-7P
    RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic
    preparation); THU (Therapeutic use); BIOL (Biological
     study); PREP (Preparation); RACT (Reactant or reagent); USES
     (Uses)
        (preparation of 2,6-disubstituted piperidines and piperazines for
        the treatment of drug abuse and
       withdrawal, eating disorders, and
       CNS diseases)
ΙT
    90-69-7P
              530-51-8P 552-72-7P 579-21-5P
     324078-19-5P 324078-32-2P 324078-40-2P
     324078-41-3P
                   650636-96-7P 748756-00-5P
    818377-09-2P 818377-10-5P 818377-11-6P
    818377-13-8P 818377-14-9P 818377-15-0P
                                                  818377-16-1P
    818377-17-2P 818377-18-3P
                                 818377-19-4P
                                                  818377-20-7P
     818377-21-8P
                   818377-22-9P
                                 818377-23-0P
                                                  818377-24-1P
    818377-25-2P
                   818377-26-3P
                                  818377-27-4P
                                                  818377-28-5P
    818377-29-6P
                   818377-30-9P
                                  818377-31-0P
                                                  818377-32-1P
    818377-33-2P
                   818377-34-3P
                                  818377-35-4P
                                                  818377-36-5P
    818377-37-6P 818377-38-7P
                                  818377-39-8P
                                                  818377-40-1P
    818377-41-2P 818377-42-3P
                                 818377-43-4P
                                                  818377-44-5P
     818377-45-6P
                   818377-46-7P
                                  818377-47-8P
                                                  818377-48-9P
                                  818377-51-4P
     818377-49-0P
                   818377-50-3P
                                                  818377-52-5P
    RL: PAC (Pharmacological activity); SPN (Synthetic preparation);
     THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (preparation of 2,6-disubstituted piperidines and piperazines for
       the treatment of drug abuse and
       withdrawal, eating disorders, and
       CNS diseases)
ΙT
     108-48-5, 2,6-Lutidine 134-64-5
                                       620-08-6, 4-Methoxypyridine
     3277-89-2, 2-Phenylethylmagnesium bromide
                                               6738-06-3,
     Phenylethynylmagnesium bromide
     RL: RCT (Reactant); RACT (Reactant or reagent)
       (preparation of 2,6-disubstituted piperidines and piperazines for
       the treatment of drug abuse and
       withdrawal, eating disorders, and
       CNS diseases)
IΤ
    818377-53-6P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP
     (Preparation); RACT (Reactant or reagent)
        (preparation of 2,6-disubstituted piperidines and piperazines for
        the treatment of drug abuse and
       withdrawal, eating disorders, and
       CNS diseases)
L51 ANSWER 5 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                        2002:482981 HCAPLUS Full-text
DOCUMENT NUMBER:
                        137:52376
TITLE:
                        Treatment and system for nicotine withdrawal
INVENTOR(S):
                        Reynolds, Mark
PATENT ASSIGNEE(S):
                        USA ..
```

SOURCE:

U.S., 10 pp.

CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
us 6409991	В1	20020625	US 1999-464549	
				1999
				1215
US 6645470	B1	20031111	US 2002-72822	
				2002
				0208
			<	
PRIORITY APPLN. INFO.:			US 1999-464549	A1
				1999
				1215
			<b>/</b>	

AB A kit and associated method in which symptoms of nicotine withdrawal syndrome are relieved as well as addressing the associated weight gain issues and craving for sweets by combining nicotine replacement therapy with complementary dosages of xylitol. A kit comprises multiple pieces of a nicotine gum containing 2-4 mg of nicotine or its metabolite and a nicotine-free xylitol gum containing at least 670 mg xylitol.

IT **90-69-7**, Lobeline

RL: PAC (Pharmacological activity); THU (Therapeutic use)

; BIOL (Biological study); USES (Uses)

(kits containing nicotine gum and xylitol gum for treatment of nicotine withdrawal and associated symptoms)

RN 90-69-7 HCAPLUS

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IC ICM A61K009-68

ICS A61K031-465

INCL 424048000

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1

IT 54-11-5, Nicotine 54-11-5D, Nicotine, metabolites, salts

90-69-7, Lobeline

RL: PAC (Pharmacological activity); THU (Therapeutic use)

; BIOL (Biological study); USES (Uses)

22

(kits containing nicotine gum and xylitol gum for treatment of

nicotine withdrawal and associated symptoms)

REFERENCE COUNT:

THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE

IN THE RE FORMAT

L51 ANSWER 6 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2001:312496 HCAPLUS Full-text

DOCUMENT NUMBER:

134:316097

TITLE:

Antinicotinic preparation

INVENTOR(S):

Gonzalez Manzanares, Jesus Maria

PATENT ASSIGNEE(S): Spain

SOURCE:

Span., 5 pp. CODEN: SPXXAD

DOCUMENT TYPE:

Patent

Spanish

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATÉ
ES 2141024	A1	20000301	ES 1997-2063	1997
			<- <del>-</del>	1003
ES 2141024 PRIORITY APPLN. INFO.:	B1	20001016	ES 1997-2063	
				1997 1003

An antinicotinic preparation is disclosed which contains a carrier polymer which biol. is resorbed and which contains groups of metabolic cations modified by alkaloids such a anabasine, cytisine, lobeline, or other antinicotinic agent. The carrier polymer may be monocarboxymethyl cellulose, CM-cellulose, cellulose phosphate, polymethacrylic acid, polyvinyl sulfate, albumin oxide, or dicarboxyldextran. The preparation may be used to help stop smoking.

90-69-7, Lobeline

RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(antinicotinic preparation for cessation of smoking)

90-69-7 HCAPLUS RN

Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

ICM A61K031-445 IC

ICS A61K009-68

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 4

57-50-1, Sucrose, biological studies 90-69-7, Lobeline 485-35-8, Cytisine 9004-32-4, Carboxymethyl cellulose 9004-54-0D, Dextran, carboxy derivs., biological studies 9015-14-9, Cellulose phosphate 15251-47-5, Anabasine 25087-26-7, Polymethacrylic acid hydrochloride 25191-25-7, Polyvinyl sulfate RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(antinicotinic preparation for cessation of smoking)

L51 ANSWER 7 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN 2001:224392 HCAPLUS Full-text

ACCESSION NUMBER: DOCUMENT NUMBER:

134:247256

TITLE:

Dextromethorphan and oxidase inhibitor for

weaning patients from narcotics and

antidepressants

INVENTOR(S):

Smith, Richard A.

PATENT ASSIGNEE(S):

SOURCE:

USA

U.S., 9 pp. CODEN: USXXAM

DOCUMENT TYPE:

Patent English

LANGUAGE:
FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.			KIND DATE			APPLICATION NO.						DATE				
	 6207	- 674			B1 20010327			us 1999-471060								
U.D	0207	0,1			DI		2001	0527	,	05 ,		7/10	,			1999
CA	2395	411			AA	20010628			CA 2000-2395411							1222
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EP	1239	860	·	•	A1		2002	0918	1	EP 2	2000-	9902	94			
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JР	2003			IE,	T2						CY,					
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AU	7748	47			В2		2004	0708	1		( 2001-	2733	8			
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											(					1222
RU	2281	771			C2		2006	0820	1		2002-	1156	59			
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EP	1700	601			<b>A</b> 2		2006	0913	1		2006-	1116	54			
																2000
									•		(- <i>-</i>					1222
ΕP	1700	601			А3		2006	0927		`						
	R:							FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE	,
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AU	2004	2009	69		A1		2004	0401	1	AU Z	2004-	2009	69			2004
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AU	2005	2250	81		A1		2005	1110	1	AU 2	2005-	2250	81			2005
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RITY	APP:	LN.	INFO	.:					τ	US 1	999-	4710	60	7	A	1000
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														•		1666

AU 2001-27338 A3
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EP 2000-990294 A3
2000
1222
WO 2000-US34967 W
2000
1222

AB Patients can be helped to break free of addictive or habit-forming narcotics and antidepressants, by treatment using two drugs. One drug is dextromethorphan (DM), which has been used for decades as an antitussive (cough-suppressing) drug in cough syrups. The other drug is an oxidase inhibitor which suppresses activity of a liver enzyme called cytochrome P 450-2D6 (also called debrisoquin hydroxylase, sparteine monooxygenase, cytochrome P 450-DB, and CYP2D6). In most patients, this oxidase rapidly degrades DM and converts it into a metabolite called dextrorphan. An oxidase inhibitor (such as quinidine) which suppresses cytochrome P 450-2D6 activity increases the half-life and concentration of DM in the circulating blood. When this combined treatment was administered orally to patients who had become dependent on morphine and anti-depressant drugs because of chronic intractable pain, it initially helped the patients reduce their dosages of morphine and other drugs, including antidepressants. When addnl. testing was done, the combined treatment allowed patients to entirely terminate all use of morphine and antidepressants, with minimal withdrawal or other adverse effects. Importantly, these same patients received no substantial benefit from taking DM by itself, without an oxidase inhibitor. According ly, the combination of dextromethorphan plus an anti-oxidase drug can allow at least some patients to break entirely free of narcotics and/or antidepressants, even after years of use for chronic pain and other medical problems, even when they are not substantially helped by dextromethorphan alone.

IT 90-69-7, Lobeline 90-69-7D, Lobeline, isomers
RL: BAC (Biological activity or effector, except adverse); BSU
(Biological study, unclassified); THU (Therapeutic use);
BIOL (Biological study); USES (Uses)

(dextromethorphan and oxidase inhibitor for weaning patients from narcotics and antidepressants)

RN 90-69-7 HCAPLUS

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 90-69-7 HCAPLUS

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

ICM A61K031-44

ICS A61K031-27; A61K031-135

```
INCL 514289000
     1-11 (Pharmacology)
     narcotic analgesic addiction treatment
     dextromethorphan oxidase inhibitor; CYP2D6 inhibitor
     dextromethorphan narcotic analgesic addiction
     treatment
     50-53-3, Chlorpromazine, biological studies 50-53-3D,
     Chlorpromazine, isomers 52-86-8, Haloperidol 52-86-8D.
     Haloperidol, isomers 56-54-2, Quinidine 58-73-1,
     Diphenhydramine 58-73-1D, Diphenhydramine, isomers
     Papaverine 58-74-2D, Papaverine, isomers 72-69-5,
     Nortriptyline 72-69-5D, Nortriptyline, isomers 90-69-7
     , Lobeline 90-69-7D, Lobeline, isomers 125-71-3,
     Dextromethorphan 130-95-0, Quinine 130-95-0D, Quinine, isomers
     146-48-5, Yohimbine 146-48-5D, Yohimbine, isomers 525-66-6,
     Propranolol 525-66-6D, Propranolol, isomers 1893-33-0, Pipamperone 1893-33-0D, Pipamperone, isomers 4360-12-7,
     Ajmaline 4360-12-7D, Ajmaline, isomers 6452-71-7, Oxprenolol
     6452-71-7D, Oxprenolol, isomers 26839-75-8, Timolol 26839-75-8D, Timolol, isomers 27203-92-5, Tramadol
                                                             31828-71-4,
     Mexiletine 31828-71-4D, Mexiletine, isomers 36894-69-6,
     Labetalol 36894-69-6D, Labetalol, isomers 51384-51-1
     51384-51-1D, isomers 54910-89-3, Fluoxetine 54910-89-3D,
     Fluoxetine, isomers 57808-66-9, Domperidone
                                                     57808-66-9D,
     Domperidone, isomers 60142-96-3, Neurontin
     RL: BAC (Biological activity or effector, except adverse); BSU
     (Biological study, unclassified); THU (Therapeutic use);
     BIOL (Biological study); USES (Uses)
        (dextromethorphan and oxidase inhibitor for weaning patients
        from narcotics and antidepressants)
REFERENCE COUNT:
                         21
                                THERE ARE 21 CITED REFERENCES AVAILABLE
                                FOR THIS RECORD. ALL CITATIONS AVAILABLE
                                IN THE RE FORMAT
L51 ANSWER 8 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                         2001:100973 HCAPLUS Full-text
DOCUMENT NUMBER:
                         134:147501
TITLE:
                         Preparation of cis-2,6-disubstituted
                         piperidines for the treatment of
                         psychostimulant abuse and withdrawal,
                         eating disorders, and
                         central nervous
                         system diseases and pathologies.
INVENTOR(S):
                         Dwoskin, Linda P.; Crooks, Peter A.; Jones,
                         Marlon D.
PATENT ASSIGNEE(S):
                         University of Kentucky Research Foundation,
                         USA
SOURCE:
                         PCT Int. Appl., 28 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                         English
FAMILY ACC. NUM. COUNT:
                         3
PATENT INFORMATION:
     PATENT NO.
                         KIND
                                DATE
                                            APPLICATION NO.
                                                                     DATE
     _____
     WO 2001008678
                          A1
                                20010208
                                             WO 2000-US20553
                                                                     2000
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         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,
             CH, CN, CR, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE,
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LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
             NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
             TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE,
             CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE,
             SN, TD, TG
     AU 2000063867
                                 20010219
                                             AU 2000-63867
                          A5
                                                                     2000
                                                                     0728
     EP 1513513
                          A1
                                 20050316
                                             EP 2000-950822
                                                                     2000
                                                                     0728
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
             MC, PT, IE, FI, CY
PRIORITY APPLN. INFO.:
                                             US 1999-146144P
                                                                     1999
                                                                     0730
                                             WO 2000-US20553
                                                                     2000
                                                                     0728
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OTHER SOURCE(S):

MARPAT 134:147501

GΙ

AB A method for treatment of drug dependence, drug withdrawal, an eating disorder, or a CNS disease or pathol. comprises administration of title compds. [I; n = 0-3; X1Y1, X2Y2 = C-C single, double, or triple bond, C-S bond, C-Se bond, C-O bond, (N-alkyl) C-N single or double bond, N-N double bond; R1, R4 = H, alkyl; R1R4 = atoms to form a ring including CH2, CH2CH2, (CH2)3, cis-CH:CH, cis-CH2CH:CH; R2, R3 = (unsatd.) hydrocarbon ring, N-, O-, S-, and/or Se-containing heterocyclyl, o-, m-, or p-substituted benzene; with provisos]. Thus, lobelanidine was stirred overnight in 85% H3PO4 at 60° to give 78.6% cis-2,6-di-trans- styrylpiperidine. Tested I showed Ki = 0.0043 μM to ≥100 μM in the high affinity [3H] nicotine binding assay.

IT 324078-32-2P 324078-36-6P 324078-40-2P 324078-41-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of cis-2,6-disubstituted piperidines for the treatment of psychostimulant abuse and withdrawal, eating

disorders, and central nervous system diseases and pathologies)

RN 324078-32-2 HCAPLUS

CN Ethanone, 2-[(2R,6S)-1-methyl-6-[(2S)-2-[[(4-methylphenyl)sulfonyl]oxy]-2-phenylethyl]-2-piperidinyl]-1-phenyl-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 324078-36-6 HCAPLUS
CN Ethanone, 2-[(2R,6S)-1-methyl-6-[(1E)-2-phenylethenyl]-2-piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown:

RN 324078-40-2 HCAPLUS CN 2-Piperidineethanol, 1-methyl- $\alpha$ -phenyl-6-[(1E)-2-phenylethenyl]-, (2R,6S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

RN 324078-41-3 HCAPLUS CN 2-Piperidineethanol, 1-methyl- $\alpha$ -phenyl-6-(2-phenylethyl)-, (2R,6S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IC ICM A61K031-33
ICS A61K031-40; A61K031-445; A61K031-55; C07D207-08; C07D207-10;
C07D207-12; C07D207-14; C07D207-16; C07D211-18; C07D211-20;

```
C07D211-22; C07D211-24; C07D211-26; C07D211-30; C07D211-32;
         C07D225-00
CC
    27-16 (Heterocyclic Compounds (One Hetero Atom))
    piperidine drug abuse eating
ST
     disorder nervous system disease treatment; lobeline analog
    drug abuse eating disorder
    nervous system disease; dopamine reuptake inhibitor piperidine
    lobeline analog prepn; nicotinic receptor antagonist piperidine
    lobeline analog; transporter protein dopamine inhibitor piperidine
    lobeline analog prepn
IT
    Brain, disease
        (Gilles de la Tourette syndrome, treatment; preparation of
       cis-2,6-disubstituted piperidines for the treatment of
       psychostimulant abuse and withdrawal, eating
       disorders, and central nervous
       system diseases and pathologies)
TТ
    Nervous system
        (Huntington's chorea, treatment; preparation of cis-2,6-
       disubstituted piperidines for the treatment of psychostimulant
       abuse and withdrawal, eating disorders, and
       central nervous system diseases and
       pathologies)
IT
    Drugs of abuse
       (abuse of, treatment; preparation of cis-2,6-disubstituted
       piperidines for the treatment of psychostimulant abuse and
       withdrawal, eating disorders, and
       central nervous system diseases and
       pathologies)
TΨ
    Mental disorder
        (attention deficit disorder, treatment; preparation of
       cis-2,6-disubstituted piperidines for the treatment of
       psychostimulant abuse and withdrawal, eating
       disorders, and central nervous
       system diseases and pathologies)
IT
    Mental disorder
        (attention deficit hyperactivity disorder, treatment; preparation of
       cis-2,6-disubstituted piperidines for the treatment of
       psychostimulant abuse and withdrawal, eating
       disorders, and central nervous
       system diseases and pathologies)
TΤ
    Nervous system
       (central, disease, treatment; preparation of
       cis-2,6-disubstituted piperidines for the treatment of
       psychostimulant abuse and withdrawal, eating
       disorders, and central nervous
       system diseases and pathologies)
TΤ
    Memory, biological
       (disorder, treatment of memory loss; preparation of
       cis-2,6-disubstituted piperidines for the treatment of
       psychostimulant abuse and withdrawal, eating
       disorders, and central nervous
       system diseases and pathologies)
TΤ
    Appetite
    Sleep
       (disorder, treatment; preparation of cis-2,6-disubstituted
       piperidines for the treatment of psychostimulant abuse and
       withdrawal, eating disorders, and
       central nervous system diseases and
       pathologies)
TΤ
    Transport proteins
    RL: BPR (Biological process); BSU (Biological study,
    unclassified); MSC (Miscellaneous); BIOL (Biological study); PROC
    (Process)
       (dopamine-transporting, inhibitors; preparation of
       cis-2,6-disubstituted piperidines for the treatment of
       psychostimulant abuse and withdrawal, eating
       disorders, and central nervous
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system diseases and pathologies)
IT
    Sleep
        (narcolepsy, treatment; preparation of cis-2,6-disubstituted
        piperidines for the treatment of psychostimulant abuse and
        withdrawal, eating disorders, and
        central nervous system diseases and
        pathologies)
TΤ
    Mental disorder
        (obsession-compulsion, treatment; preparation of
        cis-2,6-disubstituted piperidines for the treatment of
        psychostimulant abuse and withdrawal, eating
        disorders, and central nervous
        system diseases and pathologies)
IT
        (panic disorder, treatment; preparation of cis-2,6-disubstituted
        piperidines for the treatment of psychostimulant abuse and
        withdrawal, eating disorders, and
        central nervous system diseases and
        pathologies)
    Anti-Alzheimer's agents
    Antidepressants
    Antiparkinsonian agents
    Antipsychotics
     Cognition enhancers
    Nicotinic antagonists
        (preparation of cis-2,6-disubstituted piperidines for the treatment
        of psychostimulant abuse and withdrawal, eating
        disorders, and central nervous
        system diseases and pathologies)
TT
    Brain, disease
        (trauma, treatment; preparation of cis-2,6-disubstituted piperidines
        for the treatment of psychostimulant abuse and withdrawal,
        eating disorders, and central
        nervous system diseases and pathologies)
TΤ
    Fatigue, biological
        (treatment of chronic nervous exhaustion; preparation of
        cis-2,6-disubstituted piperidines for the treatment of
        psychostimulant abuse and withdrawal, eating
        disorders, and central nervous
        system diseases and pathologies)
IT
    Motion sickness
    Myasthenia gravis
        (treatment; preparation of cis-2,6-disubstituted piperidines for the
        treatment of psychostimulant abuse and withdrawal,
        eating disorders, and central
        nervous system diseases and pathologies)
IT
     90-69-7, Lobeline 324078-50-4 324078-52-6
    RL: BAC (Biological activity or effector, except adverse); BSU
     (Biological study, unclassified); BIOL (Biological study)
        (preparation of cis-2,6-disubstituted piperidines for the treatment
        of psychostimulant abuse and withdrawal, eating
        disorders, and central nervous
        system diseases and pathologies)
     324078-19-5P 324078-32-2P 324078-36-6P
TΤ
     324078-40-2P 324078-41-3P
    RL: BAC (Biological activity or effector, except adverse); BSU
     (Biological study, unclassified); SPN (Synthetic preparation);
     THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (preparation of cis-2,6-disubstituted piperidines for the treatment
        of psychostimulant abuse and withdrawal, eating
        disorders, and central nervous
        system diseases and pathologies)
IT
     552-72-7, Lobelanidine
                              6266-38-2
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of cis-2,6-disubstituted piperidines for the treatment
        of psychostimulant abuse and withdrawal, eating
```

# disorders, and central nervous system diseases and pathologies)

REFERENCE COUNT:

8

THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 9 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2000:790171 HCAPLUS Full-text

DOCUMENT NUMBER:

133:350144

TITLE:

Pyridine and piperidine derivatives for

treating neurodegenerative diseases

INVENTOR(S):

Meth-Cohn, Otto; Yu, Chu-Yi; Lestage, Pierre;

Lebrun, Marie-Cecile; Caignard, Daniel-Henri;

Renard, Pierre

PATENT ASSIGNEE(S):

Adir et Compagnie, Fr.; Les Laboratoires

Servier

SOURCE:

Eur. Pat. Appl., 36 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1050531	A1	20001108	EP 2000-401198	2000
			<	0502
EP 1050531	В1	20041117		
R: AT, BE, CH,	, DE, DI	K, ES, FR,	GB, GR, IT, LI, LU, NL,	SE,
MC, PT, IE,	, SI, L	r, LV, FI,	RO	•
FR 2793245			FR 1999-5690	
				1999
				0505
FR 2793245	В1	20021011	ATT-1-1-1-1-1	
CN 1277192	A	20001220	CN 2000-118157	
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JP 2000355579	73.2	20001226		
01 2000333373	nz.	20001220	0F 2000-133702	2000
				0502
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JP 3533361	B2	20040531		
JP 2002179652	A2	20020626	JP 2001-319183	
		_		2000
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AT 282595	E	20041215	AT 2000-401198	
				2000
				0502
PT 1050531	Tr.	20050331	< PT 2000-401198	
P1 1030331	1	20030331	PI 2000-401198	2000
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ES 2233302	т3	20050616	ES 2000-401198	
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NO 2000002351	A	20001106	NO 2000-2351	
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				0504
			<	
NO 317095	B1	20040809		

				10/015,0	7,			
	NZ	504338	A	20010629	NZ	2000-504338		2000 0504
	US	6323220	B1	20011127	US	< 2000-564527		2000 0504
	CA	2308867	AA	20001105	CA	< 2000-2308867		2000
		2308867 2000002207	C A	20060314 20001114	ZA	< 2000-2207		0505
•	BR	2000002287	<b>A</b> ·	20010102	RD	< 2000-2287		2000 0505
						· <		2000 0505
	AU	764388	B2	20030814	AU	2000-32552		2000 0505
	US	2002035123	A1	20020321	US	2001-963018		2001 0925
		6511992 2002040036	B2 A1	20030128 20020404	US	2001-962376		2001
		6638946 2003139408	B2 A1	20031028 20030724	US	< 2002-306024		0925
	פוו	6734196	B2	20040511		· · · · · · · · · · · · · · · · · · ·		2002 1127
		2003181484	A1	20030925		2003-377843		2003 0303
	US	2005004168	A1	20050106		< 2004-844856		2004 0513
	US	2006211731	A1	20060921	US	< 2006-438169		2006 0522
PRIO	RITY	APPLN. INFO.:			FR	< 1999-5690	Α	1999
					JP	< 2000-133762	АЗ	2000
					us	2000-564527	АЗ	2000
					US	2001-963018	<b>A</b> 1	0504 2001 0925

US 2003-377843

В1

2003 0303

US 2004-844956

A1

2004 0512

OTHER SOURCE(S):

MARPAT 133:350144

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CN

R5 R2 R3 R4 R1 I

Title compds. I [R1 = H; R1R4 = atoms required to complete a 6-membered ring; R1R2 = bond; R2 = H, R3 = OH; R2R3 = O; R3 = 5- or 6-membered N heterocycle; R4 = (un)substituted Ph, naphthyl, heteroaryl; R5 = 5- or 6-membered N heterocycle which may contain other heteroatoms, CHR1', CR2'R3'R4' where R1'-R4' have the same definitions as R1-R4; R6 = H, alkyl; ring = pyridine, pyridinium, piperidine] were prepared for use in treating neurodegenerative diseases and pain (no data). Thus, 2-fluoropyridine is quaternized with 4-MeC6H4SO3Me, treated with 4-bromoacetophenone pyrrolidine enamine, and reduced to 2-(1-methyl-2-piperidinyl)-1- (4-bromophenyl)-1-ethanone HI.

IT 304680-14-6P 304680-15-7P 304680-16-8P

304680-17-9P

RL: SPN (Synthetic preparation); THU (Therapeutic use);
BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of pyridine and piperidine derivs. for treating neurodegenerative diseases)

RN 304680-14-6 HCAPLUS

Ethanone, 2-[1-methyl-6-[2-(4-methylphenyl)-2-oxoethyl]-2-piperidinyl]-1-phenyl-, hydriodide (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & \\ & & \\$$

HI

RN 304680-15-7 HCAPLUS

CN Ethanone, 1-(4-chlorophenyl)-2-[1-methyl-6-(2-oxo-2-phenylethyl)-2-piperidinyl]-, hydriodide (9CI) (CA INDEX NAME)

HI

RN 304680-16-8 HCAPLUS

CN Ethanone, 1-(4-fluorophenyl)-2-[1-methyl-6-(2-oxo-2-phenylethyl)-2piperidinyl]-, hydriodide (9CI) (CA INDEX NAME)

HI

304680-17-9 HCAPLUS

CN Ethanone, 1-(4-bromophenyl)-2-[6-[2-(4-chlorophenyl)-2-oxoethyl]-1methyl-2-piperidinyl]-, hydriodide (9CI) (CA INDEX NAME)

HI

IC ICM C07D213-50 C07D213-30; C07D211-22; C07D211-32; C07D213-36; C07D401-06; A61K031-435; A61P025-28 CC 27-16 (Heterocyclic Compounds (One Hetero Atom)) Section cross-reference(s): 1

IT 263017-15-8P 304679-66-1P .304679-82-1P 304679-83-2P 304679-85-4P 304679-86-5P 304679-87-6P 304679-88-7P 304679-89-8P 304679-90-1P 304679-92-3P 304679-93-4P 304679-95-6P 304679-96-7P 304679-98-9P 304680-10-2P 304680-13-5P 304680-14-6P 304680-15-7P 304680-16-8P 304680-17-9P 304680-18-0P 304680-19-1P 304680-22-6P 304680-23-7P 304680-24-8P

304680-26-0P 304680-27-1P 304680-28-2P 304680-29-3P 304680-30-6P 304680-31-7P 304680-32-8P 304680-33-9P

304874-25-7P 304680-34-0P 304874-24-6P RL: SPN (Synthetic preparation); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of pyridine and piperidine derivs. for treating neurodegenerative diseases)

REFERENCE COUNT:

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 10 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN 2000:756906 HCAPLUS Full-text ACCESSION NUMBER:

DOCUMENT NUMBER:

133:317529

TITLE:

Method for screening compounds using nematode

worms

INVENTOR(S):

Feichtinger, Richard; Rottiers, Veerle; Bogaert, Thierry; Maillet, Isabelle

PATENT ASSIGNEE(S):

Devgen N.V., Belg. PCT Int. Appl., 26 pp.

SOURCE:

CODEN: PIXXD2

Patent

DOCUMENT TYPE: LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	TENT		<del>-</del>		KIN	D -	DATE		APPLICATION NO.					DATE	
	2000	_	24		A2		2000	1026	WO 2000-IB5				4		2000 0414
					<										
WO					A3 20010208 L, AM, AT, AU, AZ, BA, BB, BG, BR, BY,										
	W:	CN, GH,	CR, GM,	CU, HR,	CZ, HU,	DE, ID,	DK, IL,	DM, IN,	DZ, IS,	EE, JP,	ES, KE,	FI, KG,	GB, KP,	GD, KR,	GE, KZ,
		NO, TR,	NZ, TT,	PL, TZ,	PT,	RO, UG,	RU, US,	LV, SD, UZ,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,
	RW:	GH, CY, SE,	GM, DE; BF,	KE, DK,	LS, ES,	MW, FI,	SD, FR,	SL, GB, CM,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,
CA	2369	TD, 734			AA		2000	1026		CA 2	000-	2369	734		
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															2000 0414
CD.	2250	006			<b>D</b> 2		2001	0405		<					
	2350 1169				B2 A2	B2 20010425 A2 20020109				EP 2000-919099					
										-					2000 0414
	R:							FR,			IT,	LI,	LU,	NL,	SE,
JР	2002			ır,				FI, 1210			000-	6125	01		
													-		2000 0414
нк	1030	450			<b>A</b> 1		2001	0817	;		 001-	1007	98		
															2001 0205
PRIORIT	Y APP	LN.	INFO	.:							 999-:	8676		1	1999 0415

WO 2000-IB554

2000 0414

AB The invention provides improved methods of screening compds. for potential pharmacol. activity using nematode worms, principally but not exclusively, Caenorhabditis elegans. Specifically, the invention relates to methods in which the test compound is added directly to a nematode food source organism (e.g. a microorganism) and therefore taken up by the nematodes during feeding.

IT 90-69-7, Lobeline

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(compound screening method using nematode worm)

RN 90-69-7 HCAPLUS

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IC ICM C12Q001-02 ICS C12Q001-18; C12N001-20; C12N001-20; C12R001-19

CC 1-1 (Pharmacology)

IT 54-11-5, Nicotine 57-47-6, Physostigmine 90-69-7,
Lobeline 465-65-6, Naloxone 1744-22-5, Riluzole 10540-29-1,
Tamoxifen 14769-73-4, Levamisole 15500-66-0, Pancuronium
54910-89-3, Fluoxetine 65595-90-6, W7 67526-95-8, Thapsigargin
74050-98-9, Ketanserin

PL: BC (Biological activity or offector except adverse): BSU

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(compound screening method using nematode worm)

L51 ANSWER 11 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2000:560344 HCAPLUS Full-text

DOCUMENT NUMBER: 133:329442

TITLE: Lobeline: Implications for nicotinic

pharmacophore models Flammia, Dwight David, II

AUTHOR(S): Flammia, Dwight David, II
CORPORATE SOURCE: Virginia Commonwealth University, USA
SOURCE: (1999) 159 pp. Avail.: UMI, Order

No. DA9950371

From: Diss. Abstr. Int., B 2000, 60(11), 5533

DOCUMENT TYPE: Dissertation LANGUAGE: English

AB Unavailable

IT 90-69-7, Lobeline

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use);

BIOL (Biological study); USES (Uses)

(lobeline in implications for nicotinic pharmacophore models)

RN 90-69-7 HCAPLUS

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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CC
     1-12 (Pharmacology)
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90-69-7, Lobeline

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use);

BIOL (Biological study); USES (Uses)

(lobeline in implications for nicotinic pharmacophore models)

L51 ANSWER 12 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2000:553442 HCAPLUS Full-text

DOCUMENT NUMBER:

133:168383

TITLE:

Pharmaceutical compositions containing

nicotine or a ligand of nicotine receptors and a monamine oxidase inhibitor and their use for

treating tobacco withdrawal symptoms

INVENTOR(S):

Caille, Dominique; George, Pascal; Jegham,

Samir; Robineau, Pascale; Scatton, Bernard;

Zivkovic, Branimir

PATENT ASSIGNEE(S):

Sanofi-Synthelabo, Fr.

SOURCE:

PCT Int. Appl., 37 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

French

FAMILY ACC. NUM. COUNT:

JP 2002536342

PATENT INFORMATION:

PA1	PATENT NO.				KIN	D -	DATE			APPLICATION NO.					DATE
WO	2000	- 0458	46		A1		2000				000-				2222
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EF	1130	/13			AT		2001	1107		CP Z	000-	9010	60		2000
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JP 2000-596965

2000 0128

PRIORITY APPLN. INFO.:

FR 1999-1144

1999

0202

WO 2000-FR193

2000 0128

OTHER SOURCE(S): MARPAT 133:168383

The invention concerns novel pharmaceutical compns. containing nicotine or a ligand of nicotine receptors and a monamine oxidase inhibitor designed for treating tobacco withdrawal symptoms. A bilayer tablet contained befloxatone 5, lactose 66, microcryst. cellulose 20, povidone 4, crospovidone 4, and magnesium stearate 1% in the first layer, and nicotine polarcrilex 5, microcryst. cellulose 20 povidone 4, hydroxypropyl Me cellulose 25, magnesium stearate 1, and lactose q.s. 100% in the second layer.

ΙT 90-69-7, Lobelin

> RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES.(Uses)

(pharmaceutical compns. containing nicotine or ligand of nicotine receptors and monamine oxidase inhibitor and their use for treating tobacco withdrawal symptoms)

RN90-69-7 HCAPLUS

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\stackrel{\text{Ph}}{\longrightarrow} \stackrel{\text{Me}}{\longrightarrow} \stackrel{\text{S}}{\longrightarrow} \stackrel{\text{OH}}{\longrightarrow}$$

ICM A61K045-06 IC ICS A61K031-535; A61K031-465; A61K031-42

63-6 (Pharmaceuticals) CC

Section cross-reference(s): 1

54-11-5, Nicotine **90-69-7**, Lobelin 262-20-4, Phenoxathiin 357-70-0, Galantamine 485-35-8, Cytisine 555-57-7, Pargyline 14611-51-9, 538-79-4, Metanicotine 15585-43-0, RJR 2403 18464-39-6, Caroxazone L-Deprenyl 29218-27-7, Toloxatone 60762-57-4, Pirlindole 63638-91-5, 64840-90-0, Eperisone 71320-77-9, Moclobemide Brofaromine 77518-07-1, 75603-31-5, An 072 76990-56-2, Milacemide 91406-11-0, Esuprone 93438-65-4, Conantokin g 94011-82-2, Bazinaprine 103878-84-8, Lazabemide 119386-96-8, Mofegiline 117854-28-1, Befol 134564-82-2, Befloxatone 135204-83-0, t794 136236-51-6, Rasagiline 140111-52-0, Epibatidine 147402-53-7, Abt-418 156137-99-4, Rapacuronium bromide 150366-18-0, e 2011 156223-05-1, Gts-21 161416-98-4, a 85380 161417-03-4, Abt 089 176773-68-5 176773-86-7 164523-00-6 178419-47-1, AR-R 17779 179120-92-4, Altinicline 189439-39-2 189439-83-6 189439-84-7 190733-42-7 190733-47-2 190733-50**-**7 190789-14-1 191611-76-4, Sib 1553a 190789-52-7 195211-53-1, Dbo 83 198283-73-7, Abt 594 205187-44-6, KP 9 207391-08-0 207391-13-7 207391-21-7 207391-34-2 207391-48-8 207391-53-5 213998-46-0, GW 280430 214189-84-1 214189-85-2 215367-30-9 214901-35-6 215367-49-0 215367-62-7 215367-72-9 216579-65-6 216579-73-6 216580-87-9

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216581-23-6
             216581-38-3
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220100-50-5
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223796-52-9
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                            223797-32-8
                                          224818-46-6
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287973-22-2
             287973-23-3
                                          287973-25-5
287973-26-6
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                            287973-28-8
                                          287973-29-9
287973-30-2
              287973-31-3
                            287973-32-4
                                          287973-33-5
287980-52-3, RJR 2531
                        287980-53-4, RJR 2557
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RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use);

BIOL (Biological study); USES (Uses)

(pharmaceutical compns. containing nicotine or ligand of nicotine receptors and monamine oxidase inhibitor and their use for treating tobacco withdrawal symptoms)

REFERENCE COUNT:

3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 13 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2000:467867 HCAPLUS <u>Full-text</u>

DOCUMENT NUMBER:

133:84292

TITLE:

Use of lobeline compounds in the treatment of

central nervous

system diseases and pathologies
Crooks, Peter A.; Dwoskin, Linda P.

PATENT ASSIGNEE(S):

University of Kentucky Research Foundation,

USA

SOURCE:

U.S., 31 pp., Cont.-in-part of U.S. 5,830904.

CODEN: USXXAM

DOCUMENT TYPE:

INVENTOR(S):

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
				-
			Ť	
US 6087376	A	20000711	US 1998-89420	
			***	1998
				0603
•			<	
US 5830904	A	19981103	US 1997-795852	•
				1997
				0205
			<	
PRIORITY APPLN. INFO.:			US 1997-795852	A2
	•		·	1997
				0205

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OTHER SOURCE(S): MARPAT 133:84292

Lobeline and nicotine evoke [3H] overflow from rat striatal slices preloaded with [3H] dopamine ([3H]DA). The lobeline-evoked overflow is calcium-independent and not antagonized by mecamylamine, suggesting a mechanism of action other than the stimulation of nicotinic receptors. Whereas nicotine stimulates nicotinic receptors, lobeline inhibits [3H]DA uptake into synaptic vesicles and striatal synaptosomes. The results suggest that different mechanisms are responsible for the increase in striatal DA release evoked by lobeline and nicotine. [3H] - Dihydrotetrabenazine ([3H]DTBZ), used routinely to probe a high-affinity binding site-on the vesicular monoamine transporter (VMAT2) binds to vesicle membranes from rat striatum. Lobeline inhibits [3H]DTBZ binding with an IC50 of 0.90 µM, consistent with its IC50 of 0.88 µM for inhibition of [3H]DA uptake into vesicles. These results suggest that the action of lobeline is similar to that of amphetamine and that it specifically interacts with DTBZ sites on VMAT2 to inhibit DA uptake into synaptic vesicles. d-amphetamine inhibits [3H] DTBZ binding to vesicle membranes with an IC50 of 39.4 µM, a concentration 20 times greater than reported for inhibition of VMAT2 function, suggesting that d-amphetamine interacts with a different site than lobeline on VMAT2 to inhibit monoamine uptake.

These results suggest the use of lobeline and analogs thereof in treating individuals for diseases and pathologies of the **central nervous system**.

IT 90-69-7, Lobeline 552-72-7, Lobelanidine

**579-21-5**, Lobelanine

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use);

BIOL (Biological study); USES (Uses) (lobeline compds. for treatment of central

nervous system disease)

RN 90-69-7 HCAPLUS

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 552-72-7 HCAPLUS

CN 2,6-Piperidinediethanol, 1-methyl- $\alpha$ , $\alpha$ '-diphenyl-, ( $\alpha$ R, $\alpha$ 'S,2R,6S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 579-21-5 HCAPLUS

Relative stereochemistry.

IC ICM A61K031-445

INCL 514317000

CC 1-11 (Pharmacology)

Section cross-reference(s): 63

ST central nervous system therapeutic lobeline compd

IT Brain, disease

(Gilles de la Tourette syndrome; lobeline compds. for treatment of central nervous system disease)

IT Nervous system

(Huntington's chorea; lobeline compds. for treatment of central nervous system disease)

IT Mental disorder

(attention deficit disorder; lobeline compds. for treatment of central nervous system disease) IT Nervous system (central, disease; lobeline compds. for treatment of central nervous system disease) IT Sleep (disorder; lobeline compds. for treatment of central nervous system disease) IT Biological transport (dopamine uptake; lobeline compds. for treatment of central nervous system disease) IT Transport proteins RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) (dopamine-transporting, presynaptic; lobeline compds. for treatment of central nervous system disease) Drug delivery systems ΙT (injections, i.m.; lobeline compds. for treatment of central nervous system disease) IT Drug delivery systems (injections, i.v.; lobeline compds. for treatment of central nervous system disease) Drug delivery systems (injections, s.c.; lobeline compds. for treatment of central nervous system disease) ΙT Antiparkinsonian agents Antipsychotics Anxiolytics Myasthenia gravis Nervous system agents Nicotinic antagonists Schizophrenia (lobeline compds. for treatment of central nervous system disease) Nicotinic receptors RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) (lobeline compds. for treatment of central nervous system disease) IT Transport proteins RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) (monoamine-transporting, vesicular, including VMAT2; lobeline compds. for treatment of central nervous system disease) TΤ Drug delivery systems (nasal; lobeline compds. for treatment of central nervous system disease) ΙT Mental disorder (obsession-compulsion; lobeline compds. for treatment of central nervous system disease) IT Drug delivery systems (oral; lobeline compds. for treatment of central nervous system disease) Anxiety (panic disorder; lobeline compds. for treatment of central nervous system disease) TT (presynapse; lobeline compds. for treatment of central nervous system disease) ΙT Mental disorder (psychosis; lobeline compds. for treatment of central nervous system disease) ΙT Drug delivery systems (rectal; lobeline compds. for treatment of central nervous system disease)

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TΨ
     Synapse
        (synaptic vesicle; lobeline compds. for treatment of
        central nervous system disease)
IT
        (synaptosome, striatal; lobeline compds. for treatment of
        central nervous system disease)
IΤ
     Drug delivery systems
        (transdermal; lobeline compds. for treatment of central
        nervous system disease)
TΨ
     Brain, disease
     Head
        (trauma; lobeline compds. for treatment of central
        nervous system disease)
              54-11-5, Nicotine
                                   58-46-8, Tetrabenazine
     Mecamylamine 555-57-7, Pargyline
                                          3466-75-9,
     Dihydrotetrabenazine 24526-64-5, Nomifensine
                                                      67469-78-7, GBR
     12909
    RL: BAC (Biological activity or effector, except adverse); BSU
     (Biological study, unclassified); BIOL (Biological study)
        (lobeline compds. for treatment of central
        nervous system disease)
IT
     90-69-7, Lobeline 552-72-7, Lobelanidine
     579-21-5, Lobelanine
     RL: BAC (Biological activity or effector, except adverse); BSU
     (Biological study, unclassified); THU (Therapeutic use);
     BIOL (Biological study); USES (Uses)
        (lobeline compds. for treatment of central
        nervous system disease)
ΙT
     102-32-9, DOPAC
    RL: BOC (Biological occurrence); BPR (Biological process); BSU
     (Biological study, unclassified); BIOL (Biological study); OCCU
     (Occurrence); PROC (Process)
        (lobeline compds. for treatment of central
        nervous system disease)
     7440-70-2, Calcium, biological studies
     RL: BPR (Biological process); BSU (Biological study,
     unclassified); BIOL (Biological study); PROC (Process)
        (lobeline compds. for treatment of central
        nervous system disease)
IT
     51-61-6, Dopamine, biological studies
     RL: BOC (Biological occurrence); BPR (Biological process); BSU
     (Biological study, unclassified); BIOL (Biological study); OCCU
     (Occurrence); PROC (Process)
        (uptake; lobeline compds. for treatment of central
        nervous system disease)
REFERENCE COUNT:
                         26
                               THERE ARE 26 CITED REFERENCES AVAILABLE
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L51 ANSWER 14 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
                        2000:420967 HCAPLUS Full-text
ACCESSION NUMBER:
DOCUMENT NUMBER:
                         133:48900
TITLE:
                         Use of apomorphine in the manufacture of a
                         medicament for the treatment of organic
                         erectile dysfunction in males
INVENTOR(S):
                         Kling, Karen; Perdok, Renee J.; Ruff, Dustin
                         D.
PATENT ASSIGNEE(S):
                         Abbott Laboratories, USA
SOURCE:
                         PCT Int. Appl., 23 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                         English
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
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PATENT NO. KIND DATE APPLICATION NO. DATE

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	RW:	GH, CY,	GM, DE, BF,	KE, DK,	LS, ES,	MW, FI,	FR,	SL, GB,	SZ, GR,	ΙE	, UG, , IT, , GW,	LU,	MC,	NL,	PT	,
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															:	1213

Page 41

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AB A method of treating organic erectile dysfunction, particularly vasculogenic erectile dysfunction comprises administering to a male in need of such treatment a therapeutically effective amount of apomorphine or a pharmaceutically acceptable salt or pro-drug thereof. The apomorphine may be coadministered with an antiemetic agent. A sublingual tablet contained apomorphine hydrochloride 5, ascorbic acid 5, mannitol 67.9, Mg stearate 1, nicotine 1,  $\beta$ -cyclodextrin 20, and D&C Yellow aluminum lake 0.1 mg.

IT 134-64-5, Lobeline sulfate

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(apomorphine and antiemetic combinations for treatment of erectile dysfunctions from cardiovascular disease)

RN 134-64-5 HCAPLUS

CN Ethanone, 2-[(2R)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl-, sulfate (2:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 7664-93-9 CMF H2 O4 S

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CM 2

CRN 90-69-7 CMF C22 H27 N O2

Absolute stereochemistry.

IC ICM A61K031-485

ICS A61P015-10; A61K031-485; A61K031-454

1

CC 63-6 (Pharmaceuticals)

IT 50-53-3, Chlorpromazine, biological studies 51-34-3, Scopolamine 54-11-5, Nicotine 58-00-4, Apomorphine 58-38-8, 84-04-8, Pipamazine Prochlorperazine 129-74-8, Buclizine hydrochloride 134-64-5, Lobeline sulfate 138-56-7, Trimethobenzamide 303-25-3, Cyclizine hydrochloride 314-19-2, Apomorphine hydrochloride 364-62-5, Metoclopramide 523-87-5, Dimenhydrinate 1420-55-9, Thiethylperazine 14008-44-7, Metopimazine 17297-82-4 57808-66-9, Domperidone 99614-02-5, Ondansetron

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(apomorphine and antiemetic combinations for treatment of erectile dysfunctions from cardiovascular disease)

REFERENCE COUNT:

THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 15 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1999:819232 HCAPLUS Full-text

DOCUMENT NUMBER:

132:54897

TITLE:

Apomorphine-containing dosage forms for ameliorating male erectile dysfunction

INVENTOR(S): PATENT ASSIGNEE(S): El-Rashidy, Ragab; Ronsen, Bruce Pentech Pharmaceuticals, Inc., USA

PCT Int. Appl., 75 pp.

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
WO 9966916	A1 19991229	WO 1999-US14053	1999 0622
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DE, DK, ES BF, BJ, CF	, FI, FR, GB, GR, , CG, CI, CM, GA,	IE, IT, LU, MC, NL, PT, GN, GW, ML, MR, NE, SN, US 1998-102406	SE,
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AU 9947058	A1 20000110	AU 1999-47058	1999 0622
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NZ 509438	A 20030630	< NZ 1999-509438	1999 0622
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					1550 0.0150		1995
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				WΩ	1999-US14053	W	
				•••	1777 0514033	**	1999 <sup>.</sup>
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AB Psychogenic impotence can be ameliorated without substantial undesirable side effects by administration of apomorphine (I) and an antiemetic agent in an amount sufficient to substantially reduce nausea symptoms associated with the use of apomorphine. Extensive pharmacol. data are given showing the effectiveness of I. A formulation was given for a I-nicotine combination tablet.

IT 134-64-5

RL: MOA (Modifier or additive use); THU (Therapeutic use)

; BIOL (Biological study); USES (Uses)

(apomorphine-containing dosage forms for ameliorating male erectile dysfunction)

RN 134-64-5 HCAPLUS

CN Ethanone, 2-[(2R)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl-, sulfate (2:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 7664-93-9 CMF H2 O4 S

CM 2

CRN 90-69-7 CMF C22 H27 N O2

Absolute stereochemistry.

IC ICM A61K031-00

CC 63-6 (Pharmaceuticals)

ΙT 51-34-3 54-11-5 58-38-8 60-90-2 68-88-2 **134-64-5** 523-87-5 569-65-3 3254-89-5 6505-86-8 7232-21-5

14008-44-7

RL: MOA (Modifier or additive use); THU (Therapeutic use)

; BIOL (Biological study); USES (Uses)

(apomorphine-containing dosage forms for ameliorating male erectile dysfunction)

REFERENCE COUNT:

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 16 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1999:613666 HCAPLUS Full-text

DOCUMENT NUMBER:

131:223511

TITLE:

Combination of a GABA-A alpha 5 inverse agonist and a nicotinic agonist for treating

neurodegenerative conditions

INVENTOR(S):

Dawson, Gerard Raphael

PATENT ASSIGNEE(S):

Merck Sharp & Dohme Limited, UK

SOURCE:

PCT Int. Appl., 17 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

WO 9947142  A1 19990923 WO 1999-GB800  1999 0316  W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  CA 2324237  A1 19991011 AU 1999-2324237  A1 19991011 AU 1999-28477  A1 19991011 AU 1999-28477  A1 19991012 FP 1999-909110  EP 1061925 A1 20021030 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, LT, LV, FI, RO  JP 2002506822  T2 20020305 JP 2000-536382  E 20021115 AT 1999-909110  ES 2185321  T3 20030416 ES 1999-909110	PAT	CENT	NO.			KIN	D -	DATE			APPI	ICAT	ION	NO.		D	ATE
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1999 0316 <--

PRIORITY APPLN. INFO .:

GB 1998-5559

1998 0316

WO 1999-GB800

1999 0316

The present invention relates to a combination of a nicotinic agonist and an inverse AB agonist of the GABAA α5 receptor subtype, used sep., sequentially or simultaneously, in treating neurodegenerative conditions such as Alzheimer's disease and parkinsonism. Suitable GABA-A α5 inverse agonists are derivs. of 1,2,4-triazolo[3,4-a]phthalazine and nicotinic agonists are selected from nicotine, lobeline, tetramethylammonium, 1,1dimethyl-4-phenylpyrazinium, and ABT 418. A suitable dosage level is .apprx. 0.01-5 mg/kg per day of each active ingredient administered 1-4 times per day.

IT **90-69-7**, Lobeline

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(combination of GABA-A  $\alpha 5$  inverse agonist and nicotinic agonist for treating neurodegenerative disorders)

90-69-7 HCAPLUS RN

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IC ICM A61K031-50

ICS A61K031-495; A61K031-465; A61K031-445; A61K031-42; A61K031-14

CC 1-11 (Pharmacology)

Section cross-reference(s): 63

51-92-3, Tetramethylammonium 54-11-5 **90-69-7**, Lobeline 147402-53-7, ABT 418 215873-94-2 215874-86-5 244082-04-0 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

> (combination of GABA-A α5 inverse agonist and nicotinic agonist for treating neurodegenerative disorders)

REFERENCE COUNT:

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE

IN THE RE FORMAT

L51 ANSWER 17 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 1999:510839 HCAPLUS Full-text

DOCUMENT NUMBER:

131:281005

TITLE:

Lobeline: Structure-Affinity Investigation of Nicotinic Acetylcholinergic Receptor Binding

AUTHOR(S):

Flammia, Dwight; Dukat, Malgorzata; Damaj, M.

Imad; Martin, Billy; Glennon, Richard A. CORPORATE SOURCE: Department of Medicinal Chemistry School of

Pharmacy and Department of Pharmacology and Toxicology School of Medicine, Virginia Commonwealth University, Richmond, VA,

23298-0540, USA

SOURCE:

Journal of Medicinal Chemistry (1999

), 42(18), 3726-3731

CODEN: JMCMAR; ISSN: 0022-2623 American Chemical Society

PUBLISHER: DOCUMENT TYPE:

Journal

LANGUAGE: English

(-)Lobeline (1) and (-)nicotine (2) bind at neuronal nicotinic cholinergic (nACh) receptors with high affinity (Ki = 4 and 2 nM, resp.). Previous attempts to determine whether lobeline fits the currently accepted nicotinic pharmacophore model have led to suggestions that the carbonyl function, rather than the hydroxyl group, is a major contributor to binding. Interestingly, however, it has never been empirically demonstrated that either oxygen function is actually required for interaction with the receptor. In the present investigation we systematically examined a number of abbreviated analogs of lobeline and found that removal of either one or both oxygen functions reduces the affinity of lobeline by at least 25-fold; furthermore, oxidation of the (-)lobeline hydroxyl group (to afford lobelanine) or reduction of the carbonyl group (to afford lobelanidine) also resulted in decreased affinity. Although it is likely that both oxygen functions contribute to the high affinity of (-)lobeline at nACh receptors, it is concluded that the presence of both oxygen functions is not a requirement for binding; i.e., replacement of the (-)lobeline hydroxyl group with a chloro group had no effect on affinity. Another finding of the present investigation is that removal of either one or both oxygen functions of lobeline results in compds. that retain the analgesic activity and potency of (-)lobeline, indicating that there is no direct relationship between neuronal nicotinic cholinergic (primarily  $\alpha 4\beta 2$  type) receptor affinity and spinal analgesia as measured in the tail-flick assay.

246178-14-3P 246178-16-5P 246178-17-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(lobeline analogs: structure-affinity investigation of neuronal nicotinic receptor binding)

RN246178-14-3 HCAPLUS

CN 2-Piperidineethanol, 1-methyl- $\alpha$ -phenyl-6-(2-phenylethyl)-, hydrochloride,  $(\alpha R, 2R, 6S) - (9CI)$ (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

₽ HCl

246178-16-5 HCAPLUS RN

CN Ethanone, 2-[(2R,6S)-1-methyl-6-(2-phenylethenyl)-2-piperidinyl]-1phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry unknown.

RN 246178-17-6 HCAPLUS

CN 2-Piperidineethanol, 1-methyl- $\alpha$ -phenyl-6-(2-phenylethenyl)-, ( $\alpha$ S, 2S, 6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.

IT 134-63-4, (-)-Lobeline hydrochloride

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)

(lobeline analogs: structure-affinity investigation of neuronal nicotinic receptor binding)

RN 134-63-4 HCAPLUS

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

● HCl

#### IT 246178-15-4P 246178-18-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(lobeline analogs: structure-affinity investigation of neuronal nicotinic receptor binding)

RN 246178-15-4 HCAPLUS

CN 2-Piperidineethanol, 1-methyl-α-phenyl-6-(2-phenylethyl)-, hydrochloride, (αS,2S,6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

● HCl

RN 246178-18-7 HCAPLUS

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-chloro-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

● HCl

CN 2,6-Piperidinediethanol, 1-methyl-a,a'-diphenyl-, hydrochloride, (aR,a'S,2R,6S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

● HCl

RN 6168-88-3 HCAPLUS

CN Ethanone, 2,2'-[(2R,6S)-1-methyl-2,6-piperidinediyl]bis[1-phenyl-, hydrochloride, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

● HCl

Piperidinium, 2-[(2S)-2-hydroxy-2-phenylethyl]-1,1-dimethyl-6-(2-oxo-2-phenylethyl)-, iodide, (2S,6R)- (9CI) (CA INDEX NAME)

RN.

CN

TITLE:

246178-19-8 HCAPLUS

```
Absolute stereochemistry. Rotation (-).
         Ph
CC
    1-3 (Pharmacology)
IT
    246178-14-3P 246178-16-5P 246178-17-6P
    RL: BAC (Biological activity or effector, except adverse); BSU
     (Biological study, unclassified); PRP (Properties); RCT
     (Reactant); SPN (Synthetic preparation); THU (Therapeutic
    use); BIOL (Biological study); PREP (Preparation); RACT
     (Reactant or reagent); USES (Uses)
        (lobeline analogs: structure-affinity investigation of neuronal
       nicotinic receptor binding)
IT
    134-63-4, (-)-Lobeline hydrochloride
    RL: BAC (Biological activity or effector, except adverse); BSU
     (Biological study, unclassified); PRP (Properties); RCT
     (Reactant); THU (Therapeutic use); BIOL (Biological
     study); RACT (Reactant or reagent); USES (Uses)
        (lobeline analogs: structure-affinity investigation of neuronal
       nicotinic receptor binding)
IT
    246178-15-4P 246178-18-7P
    RL: BAC (Biological activity or effector, except adverse); BSU
     (Biological study, unclassified); PRP (Properties); SPN (Synthetic
    preparation); THU (Therapeutic use); BIOL (Biological
    study); PREP (Preparation); USES (Uses)
       (lobeline analogs: structure-affinity investigation of neuronal
       nicotinic receptor binding)
TT
              879-72-1 2298-49-9
                                     5424-50-0 6112-86-3,
    Lobelanidine, hydrochloride 6168-88-3, Lobelanine,
    hydrochloride 211369-50-5 246178-08-5 246178-10-9
                 246178-12-1 246178-19-8 246244-18-8
    246178-11-0
    246244-19-9, Lobelan hydrochloride
    RL: BAC (Biological activity or effector, except adverse); BSU
     (Biological study, unclassified); PRP (Properties); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (lobeline analogs: structure-affinity investigation of neuronal
       nicotinic receptor binding)
REFERENCE COUNT:
                        39
                               THERE ARE 39 CITED REFERENCES AVAILABLE
                               FOR THIS RECORD. ALL CITATIONS AVAILABLE
                               IN THE RE FORMAT
L51 ANSWER 18 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                        1998:719138 HCAPLUS Full-text
DOCUMENT NUMBER:
                        129:326105
```

Lobeline compounds as a treatment for

psychostimulant abuse and withdrawal, and for

eating disorders

INVENTOR(S):

Crooks, Peter A.; Dwoskin, Linda P.

PATENT ASSIGNEE(S):

University of Kentucky Research Foundation,

USA

SOURCE:

U.S., 20 pp. CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
us 5830904	A	19981103	us 1997-795852	
			· <	1997 0205
us 6087376	A	20000711	us 1998-89420	1998
			<	0603
PRIORITY APPLN. INFO.:			us 1997-795852 .	A2 1997
				0205

.

OTHER SOURCE(S):

MARPAT 129:326105

AB Methods are disclosed that suggest the use of lobeline and analogs thereof in treating individuals for drug dependence and withdrawal and for eating disorders. Lobeline evoked [3H] overflow from rat striatal slices preloaded with [3H]DA (3,4-dihydroxyphenylethyl-2-[N-3H]-amine), in a concentration-dependent, calcium-independent and mecamylamine-insensitive manner. A lobeline-induced inhibition of synaptic vesicular DA transport and subsequent redistribution of presynaptic DA storage may be the mechanism by which lobeline evokes DA release. Clearly, lobeline evokes DA release by a mechanism different from that of nicotine, which may explain the reported differences in the behavioral effects of these drugs, and the differences in their abilities to upregulated nicotinic receptors following chronic administration.

IT 90-69-7, Lobeline 90-69-7D, Lobeline,

pharmaceutically-acceptable salts 552-72-7, Lobelanidine 552-72-7D, Lobelanidine, pharmaceutically-acceptable salts 579-21-5

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(lobeline compds. as a treatment for psychostimulant abuse and withdrawal, and for **eating disorders**)

RN 90-69-7 HCAPLUS

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 90-69-7 HCAPLUS

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 552-72-7 HCAPLUS
CN 2,6-Piperidinediethanol, 1-meth

2,6-Piperidinediethanol, 1-methyl- $\alpha$ , $\alpha$ '-diphenyl-, ( $\alpha$ R, $\alpha$ 'S,2R,6S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 552-72-7 HCAPLUS

CN 2,6-Piperidinediethanol, 1-methyl- $\alpha$ , $\alpha$ '-diphenyl-, ( $\alpha$ R, $\alpha$ 'S,2R,6S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 579-21-5 HCAPLUS

CN Ethanone, 2,2'-(1-methyl-2,6-piperidinediyl)bis[1-phenyl-, (2R,6S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

IC ICM A61K031-445

INCL 514317000

CC 1-11 (Pharmacology)

ST lobeline treatment psychostimulant abuse withdrawal; eating disorder treatment lobeline

IT Psychotomimetics

(as **drug** of **abuse**; lobeline compds. as a treatment for psychostimulant abuse and withdrawal, and for **eating disorders**)

IT Cannabinoids

Opioids

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)

(as drug of abuse; lobeline compds. as a

10/813,647 treatment for psychostimulant abuse and withdrawal, and for eating disorders) Nervous system IT (central, dopamine release and uptake by cells of, lobeline effect on; lobeline compds. as a treatment for psychostimulant abuse and withdrawal, and for eating disorders) Appetite TΤ (disorder; lobeline compds. as a treatment for psychostimulant abuse and withdrawal, and for eating disorders) IT Drug dependence Drug withdrawal Obesity (lobeline compds. as a treatment for psychostimulant abuse and withdrawal, and for eating disorders) Nicotinic receptors TT RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) (lobeline effect on; lobeline compds. as a treatment for psychostimulant abuse and withdrawal, and for eating disorders) IT Synapse (synaptic vesicle, lobeline effects on, of rat; lobeline compds. as a treatment for psychostimulant abuse and withdrawal, and for eating disorders) IT Synapse (synaptosome, lobeline effects on, of rat; lobeline compds. as a treatment for psychostimulant abuse and withdrawal, and for eating disorders) IT 50-36-2, Cocaine 58-08-2, Caffeine, biological studies 64-17-5, Ethanol, biological studies 77-10-1, Phencyclidine 300-62-9D, Amphetamine, compds. RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (as drug of abuse; lobeline compds. as a treatment for psychostimulant abuse and withdrawal, and for eating disorders) 67-52-7D, 2,4,6(1H,3H,5H)-Pyrimidinetrione, derivs. 12794-10-4D, Benzodiazepine, derivs. RL: BSU (Biological study, unclassified); BIOL (Biological study) (as drug of abuse; lobeline compds. as a treatment for psychostimulant abuse and withdrawal, and for eating disorders) 90-69-7, Lobeline 90-69-7D, Lobeline, pharmaceutically-acceptable salts 552-72-7, Lobelanidine 552-72-7D, Lobelanidine, pharmaceutically-acceptable salts 579-21-5 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (lobeline compds. as a treatment for psychostimulant abuse and withdrawal, and for eating disorders) 54-11-5, Nicotine RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) (lobeline effect compared to; lobeline compds. as a treatment

for psychostimulant abuse and withdrawal, and for eating disorders)

IT 51-61-6, Dopamine, biological studies

RL: BPR (Biological process); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)

(release and uptake of, by cells of central nervous system, lobeline effect on; lobeline compds. as a treatment for psychostimulant abuse and

withdrawal, and for eating disorders)

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE

#### FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 19 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1998:548534 HCAPLUS Full-text

DOCUMENT NUMBER:

129:171769

TITLE:

Pharmaceutical composition for treatment of

synaptic dysfunction comprising an oxime

INVENTOR(S):

Viner, Norman M.

PATENT ASSIGNEE(S):

Synapse Pharmaceuticals International, Inc.,

Can.

SOURCE:

PCT Int. Appl., 55 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.			KIND DATE			APPLICATION NO.					DATE			
wo	9834615			A1	_	1998	0813		wo :	1998-	 CA94			
														1998 0205
	CZ, IS,	DE, JP,	DK, KE,	EE, KG,	ES, KP,	FI, KR,	GB, KZ,	GE, LC,	BR GH LK	< , BY, , GM, , LR, , PT,	GW, LS,	HU, LT,	ID, LU,	IL, LV,
	SG, US, MD,	SI, US, RU,	SK, US, TJ,	SL, US, TM	TJ, US,	TM, UZ,	TR, VN,	TT, YU,	UA ZW	, UG, , AM,	US, AZ,	US, BY,	US, KG,	US, KZ,
US		FI, CG,	FR,	GB, CM,	GR, GA,	IE, GN,	IT, ML,	LU, MR,	MC NE	, AI, , NL, , SN, 1997-	PT, TD,	SE, TG		
US	5900418			A		1999	0504		us :	1997-	7952	47		1997 0207
us	5981549			A		1999	1109			< 1997-	8018	02		1997 0210
0.5	0301013			**		1,,,,	1103			<	0010	· ·		1997 0214
US	5760,049			A		1998	0602	•		1997-	8037.	23		1997 0221
US	5824684			Ä		1998	1020			< 1997-	8037	22		1997 0221
US	5902816			A		1999	0511			< 1997-	8037	21		1997
us	5916903			A		1999	0629			< 1997-	8072	73		0221 1997
CA	2279531			AA		1998	0813			< 1998-	2279.	531		0228
	•						,			<				1998 0205
ZA	9800960			A			0817 <b>Dag</b> e			1998-	960			

					1998 0205	
				<		
AU 9859775	A1	19980826	AU	1998-59775		
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				<		
EP 1014981	<b>A1</b>	20000705	EP	1998-902893		
				•	1998	
•					0205	
				<		
R: AT, BE, CH, MC, PT, IE,		DK, ES, FR,	GB, G	R, IT, LI, LU,	NL, SE,	
JP 2001511159	Т2	20010807	JP	1998-533466		
				•	1998	
					0205	
				<		
PRIORITY APPLN. INFO.:			US	1997-797251	A2	
,					1997	
				,	0207	
			110	< 1997-795247	A2	
			05	1337 /33247	1997	
					0210	
•				<	-	
			US	1997-801801	A2	
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					. 0214	
				<	- 0	
			US	1997-801802	A2	
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			US	1997-803719	A2	
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				<	0221	
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				7777 000722	1997	
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				<		
			US	1997-803723	A2	
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					0221	
			IIC	< 1997-807273	A2	
			U.S	1991-001213	A2 1997	
					0228	
				<	7220	
			WO	1998-CA94	W	
				•	1998	
					0205	
				<		

OTHER SOURCE(S): MARPAT 129:171769

AB A pharmaceutical composition is provided for treatment of chronic symptoms of synaptic dysfunction and related disease disorders comprising an effective amount of a pharmaceutically acceptable oxime which is physiol. active such as an acetylcholine esterase reactivator optionally in association with an addnl. pharmacol. active agent. The pharmaceutical composition has wide-ranging applicability in the treatment of withdrawal symptoms due to the cessation of tobacco use, respiratory disease, drug and alc. addiction, disorders of the central and peripheral nervous systems, treatment of antineoplastic disease as well as the reduction of adverse effects of antineoplastic disease treatment, cardiac disorders and circulatory disease, obesity, fatigue

syndromes, endocrine and immune system disorders, dysfunction of gastrointestinal motility and irritable bowel syndrome, and heavy metal poisoning.

IT **90-69-7**, Lobeline

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(stimulant; pharmaceutical composition for treatment of synaptic dysfunction comprising oxime)

90-69-7 HCAPLUS RN

Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-CN piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

ICM A61K031-46

ICS A61K031-46; A61K031-44

CC 4-8 (Toxicology)

Section cross-reference(s): 1, 63

IT 59-26-7, Nikethamide 63-75-2, Arecoline **90-69-7**, Lobeline 92-13-7, Pilocarpine 300-54-9, Muscarine 304-84-7, 486-56-6, Cotinine 674-38-4, Bethanechol Ethamivan

RL: THU (Therapeutic use); BIOL (Biological study); USES

(stimulant; pharmaceutical composition for treatment of synaptic dysfunction comprising oxime)

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 20 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1998:478949 .HCAPLUS <u>Full-text</u>

DOCUMENT NUMBER:

129:117865

TITLE:

Methods and articles of manufacture for treating nicotine withdrawal symptoms, for nicotine cessation, and for monitoring

nicotine use

INVENTOR(S):

Eswara, Amruta R.; Muni, Neal; Schneider, F.

Howard; Mione, Peter J.

PATENT ASSIGNEE(S):

DynaGen, Inc., USA

SOURCE:

U.S., 23 pp., Cont.-in-part of U.S. Ser. No.

487,853, abandoned.

CODEN: USXXAM

DOCUMENT TYPE:

Patent English

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5780051	Α	19980714	US 1997-779281	1997
			<	0122
US 5403595	Α	19950404	US 1993-135847	1993
			< <del>-</del> -	1013
US 5414005	Α	19950509	US 1993-145203	

							1993 1028
					<		
US 5536503		A	19960716	US	1995-415859		
							1995 0403
					<		
PRIORITY APPLN.	INFO.:			US	1992-862051	' ВЗ	1992 0402
					<		0.102
				IIC	1992-881740	A2	
				0.5		AZ	1992 0507
					<		
				US	1993-135847	A3	1993 1013
							1013
				***	<		
				US	1993-137687	В3	1993 1015
					<		
				717	1993-145203	A3	
				OB	1993 140203	7.5	1993 1028
					<		
				US	1994-279619	A3	
							1994 0725
					<- <b>-</b>		
· .				US	1995-415859	A3	1995 0403
					<		
				US	1995-487853	В2	1995 0607
					<		
				US	1991-696637	B2	1991
					•		0507
					<		5507

AB The present invention features methods and articles of manufacture for treating nicotine withdrawal symptoms and promoting smoking cessation. The methods and articles feature the administration of an effective amount of a nicotine substitute and monitoring the presence of nicotine in the biol. sample of the subject with a nicotine detection system.

IT 90-69-7, Lobeline 90-69-7D, Lobeline, analogs

134-64-5, Lobeline sulfate

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use);

BIOL (Biological study); USES (Uses)

(methods and articles of manufacture for treating nicotine withdrawal symptoms, for nicotine cessation, and for monitoring nicotine use)

RN 90-69-7 HCAPLUS

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

90-69-7 HCAPLUS RN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-CN piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 134-64-5 HCAPLUS

CN Ethanone, 2-[(2R)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2piperidinyl]-1-phenyl-, sulfate (2:1) (salt) (9CI) (CA INDEX NAME)

1 CM

CRN 7664-93-9 CMF H2 O4 S

CM

CRN 90-69-7 CMF C22 H27 N O2

Absolute stereochemistry.

IC ICM A61K009-70

ICS A61K009-48; A61K009-50; A61F002-02

INCL 424449000

1-12 (Pharmacology)

Section cross-reference(s): 4

63-75-2, Arecoline 63-75-2D, Arecoline, analogs 90-69-7 , Lobeline 90-69-7D, Lobeline, analogs 134-64-5 494-52-0, Anabasine 494-52-0D, Anabasine, , Lobeline sulfate analogs 923-32-0, Cystine 923-32-0D, Cystine, analogs

Page 58

115713-16-1, Isoarecolone 115713-16-1D, Isoarecolone, analogs RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(methods and articles of manufacture for treating nicotine withdrawal symptoms, for nicotine cessation, and for monitoring nicotine use)

REFERENCE COUNT:

THERE ARE 125 CITED REFERENCES AVAILABLE 125 FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 21 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 1997:199587 HCAPLUS Full-text

DOCUMENT NUMBER:

126:272209

TITLE:

Lobeline and nicotine evoke [3H] overflow from

rat striatal slices preloaded with [3H]dopamine: differential inhibition of

synaptosomal and vesicular [3H]dopamine uptake

Teng, Lihong; Crooks, Peter A.; Sonsalla,

Patricia K.; Dwoskin, Linda P.

CORPORATE SOURCE: College of Pharmacy and Graduate Center for

Toxicology, University of Kentucky, Lexington,

KY, USA

SOURCE:

AUTHOR (S):

Journal of Pharmacology and Experimental

Therapeutics (1997), 280(3),

1432-1444

CODEN: JPETAB; ISSN: 0022-3565

PUBLISHER: Williams & Wilkins

DOCUMENT TYPE:

Journal English

LANGUAGE:

Lobeline is currently being developed as a substitution therapy for tobacco smoking

cessation. Activation of CNS dopamine (DA) systems results in the reinforcing properties of nicotine. The present study compared the effects of lobeline and nicotine on rat striatum. Both lobeline and nicotine evoked [3H] overflow from striatal slices superfused in the presence of pargyline and nomifensine in the buffer. Marked DA depletion (42-67%) and a concomitant 2-fold increase in dihydroxyphenylacetic acid (DOPAC) in slices superfused with high concns. (30-100 μM) of lobeline were observed The effect of nicotine (10 µM) was inhibited in a concentration-dependent manner by mecamylamine (1-100 µM). However, lobeline (0.1-100 µM)-evoked [3H]overflow was calcium-independent, and was not antagonized by mecamylamine (1-100 μM), suggesting a mechanism of action other than stimulation of nicotinic receptors. Lobeline inhibited [3H]DA uptake into synaptosomes (IC50 = 80  $\pm$  12  $\mu$ M) and vesicles (IC50 = 0.88  $\pm$  0.001 μM), whereas nicotine (≤100 μM) did not inhibit synaptosomal or vesicular [3H]DA uptake. In the absence of pargyline and nomifensine in the buffer, endogenous DA was detected in superfusate only in those slices exposed to the highest concentration (100 μM) of lobeline. However, endogenous DOPAC concentration was increased in a concentration-dependent manner, indicating that lobeline exposure resulted in increased cytosolic DA which was rapidly metabolized to DOPAC. Under these conditions, lobeline (10-100 µM) also significantly depleted (66-85%) DA content; however, no change in DOPAC content was observed The results suggest that, unlike nicotine, lobeline increases DA release by potent inhibition of DA uptake into synaptic vesicles, and a subsequent alteration in presynaptic DA storage.

TT. 90-69-7, Lobeline

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(lobeline and nicotine evoke [3H]overflow from striatal slices preloaded with [3H]dopamine)

RN 90-69-7 HCAPLUS

Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-CN piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

CC 1-11 (Pharmacology)

Section cross-reference(s): 4

TT **90-69-7**, Lobeline

> RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use);

BIOL (Biological study); USES (Uses)

(lobeline and nicotine evoke [3H]overflow from striatal slices preloaded with [3H]dopamine)

L51 ANSWER 22 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 1996:708661 HCAPLUS Full-text

DOCUMENT NUMBER: 126:1015

TITLE: Clinical experience with lobeline as a smoking

cessation agent

AUTHOR(S): Schneider, F. Howard; Olsson, Theodore A. CORPORATE SOURCE: DynaGen, Inc., Cambridge, MA, 02139, USA SOURCE: Medicinal Chemistry Research (1996),

6(7/8), 562-570

CODEN: MCREEB; ISSN: 1054-2523

PUBLISHER: Birkhaeuser DOCUMENT TYPE: Journal LANGUAGE: English

Sublingual tablets containing 7.5 mg of lobeline sulfate, recommended to be taken nine times per day for six weeks, resulted in a smoking cessation rate, during the last four weeks of the study, of 29%, compared to the placebo quit rate of 17% ( p = .28). This dosage schedule was selected from a short-term study in which the reduction of tobacco withdrawal symptoms by 2.5, 5.0 and 7.5 mg lobeline sulfate sublingual tablets taken 3, 6, 9 or 12 times per day was evaluated. The dosing frequency of nine per day is consistent with blood and brain T1/2 values of 30-40 min in rats.

IT 90-69-7, Lobeline

RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(lobeline sublingual tablets for smoking cessation)

90-69-7 HCAPLUS RN

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

TΤ 134-64-5, Lobeline sulfate

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(lobeline sublingual tablets for smoking cessation)

RN

134-64-5 HCAPLUS Ethanone, 2-[(2R)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-CN piperidinyl]-1-phenyl-, sulfate (2:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 7664-93-9 CMF H2 O4 S

CM 2

CRN 90-69-7 C22 H27 N O2

Absolute stereochemistry.

1-11 (Pharmacology)

Section cross-reference(s): 4, 63

TT **90-69-7**, Lobeline

> RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU

(Occurrence); USES (Uses)

(lobeline sublingual tablets for smoking cessation)

IT 134-64-5, Lobeline sulfate

RL: THU (Therapeutic use); BIOL (Biological study); USES

(lobeline sublingual tablets for smoking cessation)

L51 ANSWER 23 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN 1996:310352 HCAPLUS Full-text ACCESSION NUMBER:

DOCUMENT NUMBER:

125:1220

TITLE:

Effects of stimulation or blockade of central nicotinic-cholinergic receptors on performance

of a novel version of the rat stimulus

discrimination task

AUTHOR(S):

Terry, A. V., Jr.; Buccafusco, J. J.; Jackson,

W. J.; Zagrodnik, S.; Evans-Martin, F. F.;

CORPORATE SOURCE:

Decker, M. W. Univ. of Georgia Clinical Pharmacy Program,

Medical College of Georgia, Augusta, GA,

30912-2390, USA

SOURCE:

Psychopharmacology (Berlin) (1996),

123(2), 172-181

CODEN: PSCHDL; ISSN: 0033-3158

PUBLISHER:

Springer Journal

DOCUMENT TYPE: LANGUAGE: English

AB This study evaluated the effects of two central nicotinic-cholinergic receptor agonists and an antagonist on performance accuracy of a rat, delayed stimulus discrimination task (DSDT). Rats were trained to discriminate between an auditory and visual stimulus by pressing a right or left lever. To diminish the rat's ability to use mediating spatial strategies to solve the task, computer automated, retractable doors separated

the animal from the levers during delay intervals, thus reducing positioning at the lever. After stable baselines were achieved, rats were grouped and administered placebo (saline) and nicotine, lobeline or mecamylamine in a randomized dose series. Each group received two complete series of the selected compound on different occasions. Mecamylamine impaired DSDT accuracy in a dose-dependent manner while optimal doses of nicotine and lobeline significantly improved accuracy. Nicotine differed from lobeline in regard to its interaction with a dose of mecamylamine (1.0 mg/kg) that had not impaired DSDT accuracy. Combined administration of lobeline and mecamylamine was followed by a significantly increased level of DSDT accuracy that was similar to the improvement following administration of lobeline alone. In contrast, combined administration of nicotine and mecamylamine did not result in increased DSDT accuracy. Furthermore, lobeline administration similarly improved accuracy of trials associated with both the light and the tone, while nicotine improved accuracy of trials associated with the light to a much greater degree. These data suggest that the increases in DSDT accuracy associated with lobeline may be expressed through nonnicotinic mechanisms or a nicotinic receptor which is not blocked by mecamylamine.

90-69-7, Lobeline

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(effects of stimulation or blockade of central nicotinic-cholinergic receptors on performance of a novel version of rat stimulus discrimination task)

RN 90-69-7 HCAPLUS

Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

CC 1-11 (Pharmacology)

54-11-5, Nicotine 90-69-7, Lobeline

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use);

BIOL (Biological study); USES (Uses)

(effects of stimulation or blockade of central nicotinic-cholinergic receptors on performance of a novel version of rat stimulus discrimination task)

L51 ANSWER 24 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 1995:662837 HCAPLUS Full-text

DOCUMENT NUMBER: 123:40991

TITLE: Use of nicotine substitutes for the treatment

of nicotine withdrawal

INVENTOR(S): Schneider, F. Howard; Muni, Indu A.; Murty, B.

Ram; Pandya, Mahendra K.; Matharu, Rajinder P.

PATENT ASSIGNEE(S): Dynagen, Inc., USA

PCT Int. Appl., 39 pp. SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
		•		
WO 9511678	<b>A</b> 1	19950504	WO 1994-US12441	

1994 1028 W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, JP, KG, KP, KR, KZ, LK, LR, LT, LV, MD, MG, MN, NO, NZ, PL, RO, RU, SI, SK, TJ, TT, UA, US, US, UZ, VN RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG 19950509 US 5414005 Α US 1993-145203 1993 1028 AU 9480960 **A**1 19950522 AU 1994-80960 1994 1028 PRIORITY APPLN. INFO.: US 1993-144309 1993 1028 US 1993-145203 1993 1028 WO 1994-US12441 1994 1028

AB The present application features methods and articles for alleviating acute symptoms of nicotine withdrawal and as an aid in smoking cessation. The invention features lobeline and its salts held in sublingual tablets, and liquid prepns. for administration to the sublingual and nasal mucosa and pulmonary tissues and a powder for administering to the pulmonary tissues. A sublingual tablet containing 2.5 mg lobeline was formulated and its effect was clin. tested among smokers.

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IT 90-69-7, Lobeline 134-63-4, Lobeline

hydrochloride 134-64-5, Lobeline sulfate

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(lobeline as nicotine substitutes for treatment of nicotine withdrawal symptoms)

RN 90-69-7 HCAPLUS

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 134-63-4 HCAPLUS

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

HC1

RN 134-64-5 HCAPLUS

CN Ethanone, 2-[(2R)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2piperidinyl]-1-phenyl-, sulfate (2:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 7664-93-9 CMF H2 O4 S

CM 2

90-69-7 CRN CMF C22 H27 N O2

Absolute stereochemistry.

IC ICM A61K031-445

ICS A61K031-455; A61K031-44

63-6 (Pharmaceuticals)

Section cross-reference(s): 1

90-69-7, Lobeline 134-63-4, Lobeline hydrochloride 134-64-5, Lobeline sulfate RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

> (lobeline as nicotine substitutes for treatment of nicotine withdrawal symptoms)

L51 ANSWER 25 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 1995:662836 HCAPLUS Full-text

DOCUMENT NUMBER:

123:40990

TITLE: Use of lobeline for the treatment of nicotine

withdrawal symptoms

INVENTOR(S): Schneider, F. Howard; Muni, Indu A.; Murty, B.

Ram; Pandya, Mahendra K.; Matharu, Rajinder P.

PATENT ASSIGNEE(S): Dynagen, Inc., USA SOURCE:

PCT Int. Appl., 31 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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PATENT NO.
                                 KIND
                                          DATE
                                                          APPLICATION NO.
                                                                                          DATE
      WO 9511679
                                           19950504
                                  A1
                                                          WO 1994-US12442
                                                                                          1994
                                                                                          1028
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           KG, KP, KR, KZ, LK, LR, LT, LV, MD, MG, MN, NO, NZ, PL, RO, RU, SI, SK, TJ, TT, UA, US, US, UZ, VN

RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG
      US 5414005
                                          19950509
                                  А
                                                          US 1993-145203
                                                                                          1993
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      AU 9510456
                                          19950522
                                                          AU 1995-10456.
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                                                                                          1028
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      EP 725640
                                                          EP 1995-901081
                                  A1
                                          19960814
                                                                                          1994
                                                                                          1028
                                                               <--
           R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC,
                 NL, PT, SE
      JP 09507053
                                  Т2
                                          19970715
                                                          JP 1994-512876
                                                                                         1994
                                                                                          1028
PRIORITY APPLN. INFO.:
                                                          US 1993-144309
                                                                                          1993
                                                                                          1028
                                                          US 1993-145203
                                                                                          1993
                                                                                          1028
                                                          WO 1994-US12442
                                                                                          1994
                                                                                         1028
                                                               <--
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The present application features methods and articles for alleviating acute symptoms of AΒ nicotine withdrawal and as an aid in smoking cessation. The invention features lobeline held in sublingual tablets. For example, a sublingual tablet containing 2.5 mg lobeline sulfate was formulated and its effects were clin. tested among smokers.

90-69-7, Lobeline 134-63-4, Lobeline

hydrochloride 134-64-5, Lobeline sulfate

RL: THU (Therapeutic use); BIOL (Biological study); USES

(lobeline for treatment of nicotine withdrawal symptoms)

RN 90-69-7 HCAPLUS

Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 134-63-4 HCAPLUS

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

● HCl

RN 134-64-5 HCAPLUS

CN Ethanone, 2-[(2R)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl-, sulfate (2:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 7664-93-9 CMF H2 O4 S

CM 2

CRN 90-69-7 CMF C22 H27 N O2

Absolute stereochemistry.

IC ICM A61K031-445

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1

IT 90-69-7, Lobeline 134-63-4, Lobeline hydrochloride 134-64-5, Lobeline sulfate

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(lobeline for treatment of nicotine withdrawal symptoms)

L51 ANSWER 26 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN 1995:602400 HCAPLUS Full-text ACCESSION NUMBER:

DOCUMENT NUMBER:

123:17917

TITLE:

Lobeline and its analogs for the treatment of nicotine withdrawal and as an aid in smoking

INVENTOR(S):

Schneider, F. Howard; Muni, Indu A.; Murty, B. Ram; Pandya, Mahendra K.; Matharu, Rajinder P.

PATENT ASSIGNEE(S):

SOURCE:

DynaGen, Inc., USA U.S., 6 pp.

CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.				KIND		DATE			APPLICATION NO.					DATE	
US 5414005				Α		19950509		us 1993-145203					1993		
0154545				<b>AA</b>		10050504		<					1028		
CA 2174747				AA	на 1		19950504		CA 1994-2174747					1994 1028	
WO 9511678				A1		19950504		< WO 1994-US12441					1994		
				•	,				<					1028	
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							, LR,						NO,	NZ,	PL,
*							TT,								•
	RW:														IE,
							, SE,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,
			MR,		SN,										
WO	9511	679			A1		19950504 WO 1994-US12442								
															1994
								•							1028
										•					
	W:						, BY,								
							, LR,						NO,	NZ,	PL,
							TT,								
	RW:						, BE,								
							, SE,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,
				ΝE,	SN,										
AU	AU 9480960			A1		1995	0522	AU 1994-80960							
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															1028
AU	AU 9510456		<b>A1</b>		19950522			AU 1995-10456							
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															1028
								<							
ΕP	P 725640			A1		19960814		EP 1995-901081							
															1994
															1028
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			PT,	SE											
JP	P 09507053			Т2		1997	0715		JP 1	994-	5128	76			

							1994 1028
US 5780051		A	19980714	US	< 1997-779281		1997
					<		0122
PRIORITY APPLN.	INFO.:			US	1992-862051	В3	1992 0402
•					<		
				US	1992-881740	A2	1992 0507
•					<		
				US	1993-135847	A3	1993 1013
				***	<		
	1		•		1993-137687	В3	1993 1015
					<	70	
				US	1993-144309	A	1993 1028
				110	<		
					1993-145203	Α	1993 1028
	-				< <b></b> 1994-279619	7.2	
				US	<	A3	1994 0725
			•	WO	1994-US12441	w	
					<		1994 1028
				WO	1994-US12442	W	
						••	1994 1028
				IIC	< 1995-415859	A3	
				0.5		AS	1995 0403
				TIC	< 1995-487853	В2	
					1737-401033	D4	1995 0607
					,		

AB Sublingual tablets comprise lobeline, its analogs, or salts with disintegrants capable of causing disintegration within a 5 min period in the presence of oral secretions for alleviating acute symptoms of nicotine withdrawal and as an aid in smoking cessation. A sublingual tablet contained lobeline sulfate 2.5, mannitol 31.5, microcryst. cellulose 40.35, Na starch glycolate 2.6, Na saccharin 0.5, peppermint flavors 0.75, Magnasweet 0.5, vanilla flavor 0.2, D&C Yellow Number 10 0.2, Mg stearate 0.5, and Aerosil-200 0.4 mg.

90-69-7, Lobeline 134-63-4, Lobeline hydrochloride 134-64-5, Lobeline sulfate RL: THU (Therapeutic use); BIOL (Biological study); USES

(sublingual tablets containing lobeline for treatment of nicotine withdrawal and as aid in smoking cessation)

RN 90-69-7 HCAPLUS
CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 134-63-4 HCAPLUS
CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2piperidinyl]-1-phenyl-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

● HCl

RN 134-64-5 HCAPLUS

CN Ethanone, 2-[(2R)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl-, sulfate (2:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 7664-93-9 CMF H2 O4 S

CM 2

CRN 90-69-7 CMF C22 H27 N O2

Absolute stereochemistry.

IC ICM A61K009-20 ICS A61K031-465 INCL 514343000

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1, 4

90-69-7, Lobeline 134-63-4, Lobeline

hydrochloride 134-64-5, Lobeline sulfate

RL: THU (Therapeutic use); BIOL (Biological study); USES

(Uses)

(sublingual tablets containing lobeline for treatment of nicotine withdrawal and as aid in smoking cessation)

L51 ANSWER 27 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1995:221528 HCAPLUS Full-text

DOCUMENT NUMBER:

122:305842

TITLE:

Reversal of multidrug resistance by bis(phenylalkyl)amines and structurally

related compounds

AUTHOR(S):

Ramu, Avner; Ramu, Nili

CORPORATE SOURCE:

Department Oncology, Hadassah University

Hospital, Jerusalem, 91120, Israel

SOURCE: Cancer Chemotherapy and Pharmacology (
1994), 34(5), 423-30

CODEN: CCPHDZ; ISSN: 0344-5704

DOCUMENT TYPE:

Journal English

LANGUAGE:

AB We have previously reported that multidrug (MDR)-reversal activity can be exerted by compds. in which two ring structures of certain types are connected by one alkyl bridge to a secondary or tertiary amine group. In the present investigation we studied the MDR-reversal activity of compds. in which the two ring structure were connected by sep. alkyl bridges to the amine group. The structure-activity relationship of these compds. verified previous findings on the structural features that support MDR-reversal activity as well as the features that reduce such activity. In addition, the present study reveals addnl. chemical groups and ring structures that support MDR-reversal

activity as well as those that reduce it. IT 90-69-7, Lobeline

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(multidrug resistance reversal by bis(phenylalkyl)amines and structurally related compds.)

RN 90-69-7 HCAPLUS

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\stackrel{\text{Ph}}{\longrightarrow} \stackrel{\text{Me}}{\longrightarrow} \stackrel{\text{S}}{\longrightarrow} \stackrel{\text{OH}}{\longrightarrow}$$

CC 1-3 (Pharmacology)

IT

52-53-9, Verapamil 52-86-8, Haloperidol 54-03-5, Hexobendine 64-96-0, U 11555A 74-31-7 78-41-1, Triparanol 90-54-0, Etafenone 90-69-7, Lobeline 91-75-8, Antazoline 92-59-1, Ethylbenzylaniline 103-49-1, Dibenzylamine 140-28-3, N, N'-Dibenzylethylenediamine 150-59-4, Alverine 153-87-7, Oxypertine 357-66-4, Spirilene 366-93-8, AY 9944 469-62-5. 475-81-0, Glaucine 493-78-7, Methaphenilene Propoxyphene 510-74-7, Spiramide 493-80-1, Histapyrrodine 528-52-9, Spasmadryl 620-40-6, Tribenzylamine 749-13-3, Trifluperidol 911-45-5, Clomiphene 961-71-7, Phenbenzamine 1178-99-0, U 10520A 1480-19-9, Fluanisone 1845-11-0, Nafoxidine 2688-77-9, Laudanosine 2784-55-6 3039-71-2, U 18666A

# 10/813,647

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3647-71-0
     3625-06-7, Mebeverine
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     4378-36-3, Fenbutrazate
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                      4945-47-5, Bamipine
                                           5585-64-8, Amotriphene
     Norlaudanosine
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                 15687-16-8, Carbiphene
     14728-33-7
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     16359-24-3, T13
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     24678-13-5, Lenperone
                            27076-46-6, Alpertine
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             32487-03-9, Ro 04-2359
                                       32665-36-4, Eprozinol
     33189-65-0, MDL 6792 34758-83-3, Zipeprol 35898-87-4, Dilazep
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    52618-67-4, Tioperidone 53775-12-5 54063-40-0, Fenoxedil 55985-32-5, Nicardipine 57010-31-8, Tiapamil 57558-44-8,
                 58033-02-6, D 490 58581-89-8, Azelastine
     Secoverine
     59170-23-9, Bevantolol 63675-72-9, Nisoldipine
                                                       64706-54-3,
    Bepridil 65277-42-1, Ketoconazole 66085-59-4, Nimodipine
     67018-79-5, D557 67018-81-9, D559 67018-83-1, D 525
     67165-56-4, Diclofensine 67254-81-3, Peradoxime 67914-69-6, R
           67915-31-5, Terconazole 67915-35-9, R 42164
     68576-86-3, Enciprazine 72509-76-3, Felodipine 72803-02-2,
     Darodipine 75706-37-5, S 785781 77590-96-6, Flordipine
     78370-11-3, SZ48
                        78370-13-5, Emopamil
                                              78370-14-6, D784
     78370-15-7, D894
                        83366-66-9, Nefazodone
                                                84625-61-6,
     Itraconazole 85247-76-3, Dagapamil
                                           85673-87-6, Revenast
     86656-06-6, D528 88150-42-9, Amlodipine 92302-55-1, Devapamil
     103997-59-7, Selprazine 108704-90-1, Ro 04-2249
                                                         114697-88-0,
                 129309-29-1 144236-78-2, s 79-0671
     Ro 04-2360
                                                         161161-55-3, R
             161161-56-4, Ro 04-2669
                                     161161-57-5, SPS 1853
     161273-29-6, Ro 04-2285
    RL: BAC (Biological activity or effector, except adverse); BSU
     (Biological study, unclassified); THU (Therapeutic use);
    BIOL (Biological study); USES (Uses)
        (multidrug resistance reversal by bis(phenylalkyl)amines and
        structurally related compds.)
L51 ANSWER 28 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                         1976:586806 HCAPLUS Full-text
DOCUMENT NUMBER:
                         85:186806
TITLE:
                         Relation between physical constants and
                         therapeutic doses of some organic bases
                         Volpi, A. Farm. "Al Moro", Mantua, Italy
AUTHOR(S):
CORPORATE SOURCE:
SOURCE:
                         Bollettino Chimico Farmaceutico (1976
                         ), 115(6), 466-74
                         CODEN: BCFAAI; ISSN: 0006-6648
DOCUMENT TYPE:
                         Journal
LANGUAGE:
                         Italian
     Data are given on the molar solubility in H2O at 40° (S), an average value between the
     mean and maximum therapeutic doses (D, in moles), and the dissociation const(s). (K1
     and K2) of 26 mono- and 6 diacidic drugs. Correlations were sought among various
     combinations of these parameters. An almost linear dependence was found between 1/D
     and K/S, and a highly significant correlation between log (1/D) and log (K/S), where K
     is K1 for the monoacidic drugs and (K1K2)1/2 for the diacidic drugs. No significant
     correlations were found between log K1 and log (1/D), between log K1 and log S, or
     between log (1/D) and log S.
     90-69-7
    RL: BAC (Biological activity or effector, except adverse); BSU
     (Biological study, unclassified); THU (Therapeutic use);
    BIOL (Biological study); USES (Uses)
```

Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-

(pharmacol. of, phys. consts. in relation to)

piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

AB

TΤ

RN

CN

90-69-7 HCAPLUS

Absolute stereochemistry.

CC 1-13 (Pharmacodynamics) ΙT 50-13-5 50-36-2 50-55-5 51-05-8 51-34-3 51-43-4 51-55-8, biological studies 56-54-2 57-24-9 57-27-2, 58-15-1 58-74-2 biological studies 57-47-6 76-57-3 76-99-3 87-00-3 90-39-1 **90-69-7** 92-13-7 115-37-7 146-48-5 125-30-4 130-95-0 299-42-3 302-27-2 125-29-1 458-88-8 483-18-1 561-27-3 644-26-8 1435-55-8 2531-04-6 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (pharmacol. of, phys. consts. in relation to)

L51 ANSWER 29 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 1970:41362 HCAPLUS Full-text

DOCUMENT NUMBER:

IBER: 72:41362

TITLE:

Bronchopulmonary and gastrointestinal effects

of lobeline

AUTHOR(S):

Cambar, P. J.; Shore, S. R.; Aviado, D. M.

CORPORATE SOURCE:

Sch. of Med., Univ. of Pennsylvania,

Philadelphia, PA, USA

SOURCE:

Archives Internationales de Pharmacodynamie et

de Therapie (**1969**), 177(1), 1-27 CODEN: AIPTAK; ISSN: 0003-9780

DOCUMENT TYPE:

LANGUAGE:

Journal English

AB Lobeline increased pulmonary resistance in anesthetized dogs and rats, accompanied by variable effects on pulmonary compliance, aortic blood pressure, and heart rate. Intestinal motility was also inhibited in dogs, partly as a reflex elicited by inhalation of lobeline in aerosol form. The natural form of lobeline was more consistent than the synthetic form in inhibiting intestinal motility, and this inhibition was partly reduced but not completely blocked by vagotomy, indicating that a reflex mediated by the vagus is an important but not the exclusive cause of inhibition. The role of this effect in mediating the anorexia known to occur with lobeline could not be explored in the rat because the animal was suitable only for demonstration of centrally acting drugs.

IT 134-64-5

RL: THU (Therapeutic use); BIOL (Biological study); USES

(pharmacology of)

RN 134-64-5 HCAPLUS

CN Ethanone, 2-[(2R)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2piperidinyl]-1-phenyl-, sulfate (2:1) (salt) (9CI) (CA INDEX
NAME)

CM 1

CRN 7664-93-9 CMF H2 O4 S

о но\_з\_он Ц CM 2

CRN 90-69-7 CMF C22 H27 N O2

Absolute stereochemistry.

CC 15 (Pharmacodynamics)

IT 134-64-5

RL: THU (Therapeutic use); BIOL (Biological study); USES

(Uses)

(pharmacology of)

=> => d que stat 153 L5

efo-Ak ef2-fy

e19 20 N-Ak @21 22

REP G1=(0-4) C

VAR G2=CH2/10/12

VAR G3=CH/17/19

VAR G4=NH/21

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 16

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE

L6 SCR 1838 L9 SCR 1100 L10 SCR 1992

L12 SCR 1918 OR 2043

451 SEA FILE=REGISTRY SSS FUL L5 AND L6 AND L9 AND L10 NOT L14

L12

L17 969 SEA FILE=HCAPLUS ABB=ON PLU=ON L14 L18

QUE ABB=ON PLU=ON PHARMAC?/SC,SX L20

703 SEA FILE=HCAPLUS ABB=ON PLU=ON L17 AND L18 617 SEA FILE=HCAPLUS ABB=ON PLU=ON L20 AND 1907-1999/PY,P L26

RY

L27 QUE ABB=ON PLU=ON CNS OR CENTRAL (3A) NERVOUS (3A) (SYS

OR SYSTEM)

# 10/813,647

```
L28
            26 SEA FILE=HCAPLUS ABB=ON PLU=ON L26 AND L27
L35
            88 SEA FILE=HCAPLUS ABB=ON PLU=ON L14/THU
L36
            33 SEA FILE=HCAPLUS ABB=ON PLU=ON L35 AND L26
L37
            53 SEA FILE=HCAPLUS ABB=ON PLU=ON L36 OR L28
L38
               QUE ABB=ON PLU=ON (DRUG? OR NARCOT?) (2A) (ABUSE# OR A
                BUSING OR ADDICT? OR TREAT?)
L39
          1540 SEA FILE=HCAPLUS ABB=ON PLU=ON ANOREXIA/CT
           672 SEA FILE=HCAPLUS ABB=ON PLU=ON BULIMIA/CT
L40
L41
               QUE ABB=ON PLU=ON EAT?(2A)(DISORDER? OR DISEASE) OR
               L39 OR L40
L42
              3 SEA FILE=HCAPLUS ABB=ON PLU=ON L26 AND L41
L43
             1 SEA FILE=HCAPLUS ABB=ON PLU=ON L26 AND (ANOREXIA? OR
               BULIMIA?)
L44
            53 SEA FILE=HCAPLUS ABB=ON PLU=ON L37 OR L42 OR L43
L45
            a F2- F3
 a CH-Ak
                                                        efmak
 e19 20
            ^{N} \sim G5
```

REP G1=(0-4) C VAR G2=CH2/10/12 VAR G3=CH/17/19 VAR G4=NH/21 VAR G5=ME/ET/N-PR/I-PR NODE ATTRIBUTES: CONNECT IS E1 RC AT 16 DEFAULT MLEVEL IS ATOM GGCAT IS UNS AT IS UNS AT GGCAT 13 GGCAT IS UNS AT 20 DEFAULT ECLEVEL IS LIMITED ECOUNT IS M5-X6 C AT ECOUNT IS M1-X4 C AT 11 ECOUNT IS M5-X6 C AT 13 ECOUNT IS M1-X4 C AT 18 ECOUNT IS M5-X6 C AΤ 20

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 22

#### STEREO ATTRIBUTES: NONE

L47	171 SEA FILE=REGISTRY SUB=L14 SSS FUL L45
L49	82 SEA FILE=HCAPLUS ABB=ON PLU=ON L47/THU
L50	80 SEA FILE=HCAPLUS ABB=ON PLU=ON L49 AND (L18 OR L27 OR L38 OR L41)
L51	29 SEA FILE=HCAPLUS ABB=ON PLU=ON L50 AND 1907-1999/PY,P
L53	RY 25 SEA FILE=HCAPLUS ABB=ON PLU=ON L44 NOT L51

## => d 153 1-25 ibib abs hitstr hitind

L53 ANSWER 1 OF 25	HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:	2004:80353 HCAPLUS Full-text
DOCUMENT NUMBER:	140:128284
TITLE:	Preparation of 2,6-distyrylpipe

Preparation of 2,6-distyrylpiperidines as modulators of nicotinic acetylcholine receptor

# 10/813,647

mediated neurotransmitter release, uptake and

storage

INVENTOR (S):

Crooks, Peter A.; Dwoskin, Linda; Miller,

Dennis Keith; Grinevich, Vladimir P.; Norrholm, Seth Davin; Zheng, Guangrong

PATENT ASSIGNEE(S):

University of Kentucky Research Foundation,

USA

SOURCE:

U.S. Pat. Appl. Publ., 9 pp., Cont.-in-part of

U.S. 6,455,543.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004019081	A1	20040129		2002 0607
•			<	,00,
US 6703406	B2	20040309		
US 6455543	B1	20020924	US 2000-628557	
				2000 0728
			<	
PRIORITY APPLN. INFO.:				1999 0730
•			<	
				2000 0728

OTHER SOURCE(S):

MARPAT 140:128284

GΙ

$$\mathbb{R}^3$$

AB Title compds. [I; R1 = H, Me, CD3, CT3, Et, alkyl cycloalkyl, vinyl, allyl, alkenyl, benzyl, phenylethyl; R2, R3 = H, Me, Et, alkyl, cycloalkyl, vinyl, allyl, alkenyl, benzyl, phenylethyl, etc.], were prepared Thus, L-lobeline hemisulfate was stirred with NaBH4 in EtOH at 0° for 1 h to give lobelandine. The latter was stirred 24 h in 85% H3PO4 to give cis-2,6-di-trans- styrylpiperidine (II) and the trans-isomer. II inhibited nicotine-evoked [3H]-dopamine overflow at α3β2 receptors with IC50 = 0.03 μM.

RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of distyrylpiperidines as modulators of nicotinic acetylcholine receptor mediated neurotransmitter release, uptake and storage)

RN 134-64-5 HCAPLUS

CN Ethanone, 2-[(2R)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2piperidinyl]-1-phenyl-, sulfate (2:1) (salt) (9CI) (CA INDEX
NAME)

CM 1

CRN 7664-93-9 H2 O4 S CMF

CM

90-69-7 CRN C22 H27 N O2 CMF

Absolute stereochemistry.

IT 552-72-7P, Lobelanidine

> RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of distyrylpiperidines as modulators of nicotinic acetylcholine receptor mediated neurotransmitter release, uptake and storage)

552-72-7 HCAPLUS RN

CN 2,6-Piperidinediethanol, 1-methyl- $\alpha$ , $\alpha$ '-diphenyl-,  $(\alpha R, \alpha' S, 2R, 6S)$ -rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

IC ICM A61K031-445

ICS A61K051-00

INCL 514317000; 424001110

27-16 (Heterocyclic Compounds (One Hetero Atom)) Section cross-reference(s): 1

ST distyrylpiperidine prepn nicotinic acetylcholine receptor mediated neurotransmitter release modulator; dopamine norepinephrine serotonin release uptake storage inhibitor distyrylpiperidine prepn; piperidine distyryl prepn cns disease treatment

IT Alzheimer's disease

Central nervous system, disease

Cognitive disorders Drug dependence

Eating disorders

Motion sickness Myasthenia gravis

Narcolepsy

Pain

Parkinson's disease Schizophrenia Sleep disorders

(treatment; preparation of distyrylpiperidines as modulators of nicotinic acetylcholine receptor mediated neurotransmitter release, uptake and storage)

IT 134-64-5

> RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of distyrylpiperidines as modulators of nicotinic acetylcholine receptor mediated neurotransmitter release, uptake and storage)

IT 552-72-7P, Lobelanidine

> RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of distyrylpiperidines as modulators of nicotinic acetylcholine receptor mediated neurotransmitter release,

uptake and storage)

L53 ANSWER 2 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2001:432890 HCAPLUS Full-text

DOCUMENT NUMBER:

135:46204

TITLE:

Preparation of 4-phenyl-2-(2-oxo-2-

piperazinylethyl)-1,4-dihydropyridine-3,5 dicarboxylates as bradykinin antagonists Okumura, Yoshiyuki; Kawamura, Mitshuriro;

Kawai, Makoto; Murase, Noriaki; Ikeda,

Takafumi

PATENT ASSIGNEE(S):

Pfizer Inc., USA

SOURCE:

Eur. Pat. Appl., 46 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

INVENTOR(S):

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1106615	A1	20010613	EP 2000-310792	2000 1205
•			<	1200
EP 1106615	B1	20030305		
R: AT, BE, CH, MC, PT, IE,			GB, GR, IT, LI, LU, NL, RO	SE,
AT 233760			AT 2000-310792	
				2000 1205
			<	
ES 2191598	Т3	20030916	ES 2000-310792	2000 1205
			<	
JP 2001192382	A2	20010717	JP 2000-373446	2000 1207
			<	1207
CA 2327946	AA	20010610	CA 2000-2327946	
			V	2000 1208
0000005006	_		<	
BR 2000005826	A	20011211	BR 2000-5826	2000 1211
			<	
US 2002042421	A1	20020411	US 2001-964907	2001

# 10/813,647

						0927
				<		
US 2003176445	A1	20030918	US	2003-366486		
						2003
						0213
				<		
PRIORITY APPLN. INFO.:			US	1999-170033P	P	
						1999
						1210
				<		
			US	2000-723252	A1	
						2000
						1127
			US	2001-964907	В1	
						2001
						0927
			US	2002-161026	В1	
						2002
						0603

OTHER SOURCE(S):

MARPAT 135:46204

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT

AB Title compds. (I) [wherein A = independently halo; Y = (CH2)m, CO, or SO; R1 and R2 = independently alkyl; R3 = (un) substituted bicycloalkyl, azacycloalkyl, or azabicycloalkyl; R4 = (un) substituted thiazolyl, imidazolyl, or oxazolyl; R5 = H or alkyl; m = 0-2; n = 0=5; or the pharmaceutically acceptable salts thereof] were prepared as bradykinin antagonists for the treatment of inflammation, allergic rhinitis, pain, etc. For example, II was formed in a multi-step sequence involving the reaction of Me 3-(2,6-dichlorophenyl)-2-[3-(1,3-thiazol-2-yl)propanoyl]-2- propenoate with di-Me 3-amino-2-pentenedioate to give the 2-[1,4-dihydro-3,5-bis(methoxycarbonyl)-2-pyridinyl]acetic acid (85%), followed by amidation with 4-(3-methylbicyclo[3.2.1]oct-3-yl)piperazine (73%). In recombinant human bradykinin B2 receptor expressing CHO-K1 cells, I inhibited the binding of bradykinin to its receptor sites with IC50 values of 1 nM to 30 nM.

IT 344436-19-7

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(comparison compound; preparation of 4-phenyl-2-(2-oxo-2-piperazinylethyl)-1,4-dihydropyridine-3,5-dicarboxylates for treatment of inflammation, asthma, allergic rhinitis, pain, and other bradykinin related disorders)

RN 344436-19-7 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-(8-methyl-8-azabicyclo[3.2.1]oct-3-yl)-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thienyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

#### IT 344434-28-2P 344434-38-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of 4-phenyl-2-(2-oxo-2-piperazinylethyl)-1,4-dihydropyridine-3,5-dicarboxylate bradykinin antagonists by reaction of benzylidenes with enamines and addition of piperazines)

RN 344434-28-2 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-[(3-exo)-8-methyl-8-azabicyclo[3.2.1]oct-3-yl]-1-piperazinyl]-2-oxoethyl]-6-[2-(2-oxazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN - 344434-38-4 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-(3S)-1-azabicyclo[2.2.2]oct-3-yl-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

#### IT 344434-21-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of 4-phenyl-2-(2-oxo-2-piperazinylethyl)-1,4-dihydropyridine-3,5-dicarboxylate bradykinin antagonists by reaction of benzylidenes with enamines and addition of piperazines)

RN 344434-21-5 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-[(3-exo)-8-methyl-8-azabicyclo[3.2.1]oct-3-yl]-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, (4R)-rel-(-)- (9CI) (CA INDEX NAME)

Rotation (-). Absolute stereochemistry unknown.

#### IT 344434-19-1P 344435-96-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of 4-phenyl-2-(2-oxo-2-piperazinylethyl)-1,4-dihydropyridine-3,5-dicarboxylate bradykinin antagonists by reaction of benzylidenes with enamines and addition of piperazines)

RN 344434-19-1 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-[(3-exo)-8-methyl-8-azabicyclo[3.2.1]oct-3-yl]-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

#### Relative stereochemistry.

RN 344435-96-7 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-oxo-2-[4-(8-oxobicyclo[3.2.1]oct-3-yl)-1-piperazinyl]ethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

```
344433-95-0P 344433-97-2P 344433-99-4P
IT
    344434-01-1P 344434-03-3P 344434-05-5P
    344434-07-7P 344434-09-9P 344434-11-3P
    344434-13-5P 344434-15-7P 344434-17-9P
    344434-24-8P 344434-26-0P 344434-30-6P
    344434-32-8P 344434-34-0P 344434-36-2P
    344434-40-8P 344434-42-0P 344434-44-2P
    344434-46-4P 344434-48-6P 344434-50-0P
    344434-52-2P 344434-54-4P 344434-56-6P
    344434-58-8P 344434-60-2P 344434-62-4P
    344434-64-6P 344434-67-9P 344434-69-1P
    344434-71-5P 344434-73-7P 344434-75-9P
    344434-77-1P 344434-79-3P 344434-81-7P
    344434-83-9P 344434-85-1P 344434-87-3P
    344434-89-5P 344436-14-2P 344436-15-3P
    344436-16-4P 344436-17-5P 344436-18-6P
    344570-44-1P 344570-45-2P
    RL: BAC (Biological activity or effector, except adverse); BSU
```

# 10/813,647

(Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of 4-phenyl-2-(2-oxo-2-piperazinylethyl)-1,4-dihydropyridine-3,5-dicarboxylate bradykinin antagonists by reaction of benzylidenes with enamines and addition of piperazines)

RN 344433-95-0 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-(8-methylbicyclo[3.2.1]oct-3-yl)-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{MeO-} \\ \text{MeO-} \\ \text{CH}_2 \\ \text{CH}_2 \\ \text{CH}_2 \\ \text{CH}_2 \\ \text{S} \\ \text{N} \\ \end{array}$$

RN 344433-97-2 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-oxo-2-(4-spiro[bicyclo[3.2.1]octane-8,2'-[1,3]dioxolan]-3-yl-1-piperazinyl)ethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

344433-99-4 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-oxo-2-[4-(8-oxobicyclo[3.2.1]oct-3-yl)-1-piperazinyl]ethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 344434-01-1 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-(8-hydroxybicyclo[3.2.1]oct-3-yl)-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344434-03-3 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-(8-hydroxy-8-methylbicyclo[3.2.1]oct-3-yl)-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344434-05-5 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-(8-butyl-8-hydroxybicyclo[3.2.1]oct-3-yl)-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl

### ester (9CI) (CA INDEX NAME)

RN 344434-07-7 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-[8-hydroxy-8-(1-methylethyl)bicyclo[3.2.1]oct-3-yl]-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344434-09-9 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-(8-methoxybicyclo[3.2.1]oct-3-yl)-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344434-11-3 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-(4-bicyclo[2.2.2]oct-2-yl-1-piperazinyl)-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344434-13-5 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-(octahydro-5-oxo-2-pentalenyl)-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344434-15-7 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-(1-methyl-3-piperidinyl)-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344434-17-9 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-oxo-2-[4-[1-(phenylmethyl)-3-piperidinyl]-1-

piperazinyl]ethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI)
 (CA INDEX NAME)

RN 344434-24-8 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-[(3-exo)-8-methyl-8-azabicyclo[3.2.1]oct-3-yl]-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, 3-ethyl 5-methyl ester (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 344434-26-0 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-[(3-exo)-8-methyl-8-azabicyclo[3.2.1]oct-3-yl]-1-piperazinyl]-2-oxoethyl]-6-[2-(1-methyl-1H-imidazol-2-yl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 344434-30-6 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-(8-ethyl-8-azabicyclo[3.2.1]oct-3-yl)-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344434-32-8 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-[8-(1-methylethyl)-8-azabicyclo[3.2.1]oct-3-yl]-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

344434-34-0 HCAPLUS

RN

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-(8-acetyl-8-azabicyclo[3.2.1]oct-3-yl)-1-piperazinyl]-2-oxoethyl]-4-(2,6-

dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl
ester (9CI) (CA INDEX NAME)

RN' 344434-36-2 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-(8-formyl-8-azabicyclo[3.2.1]oct-3-yl)-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344434-40-8 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-(3R)-1-azabicyclo[2.2.2]oct-3-yl-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 344434-42-0 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-(octahydro-2-methylcyclopenta[c]pyrrol-5-yl)-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344434-44-2 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-(2-acetyloctahydrocyclopenta[c]pyrrol-5-yl)-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344434-46-4 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-(2-formyloctahydrocyclopenta[c]pyrrol-5-yl)-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344434-48-6 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-(8-methylbicyclo[3.2.1]oct-3-yl)-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 344434-50-0 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-(8-butyl-8-hydroxybicyclo[3.2.1]oct-3-yl)-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 344434-52-2 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-[8-hydroxy-8-(1-methylethyl)bicyclo[3.2.1]oct-3-yl]-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 344434-54-4 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-(8-methoxybicyclo[3.2.1]oct-3-yl)-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 344434-56-6 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-(4-bicyclo[2.2.2]oct-2-yl-1-piperazinyl)-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

HCl

RN 344434-58-8 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-(octahydro-5-oxo-2-pentalenyl)-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c} O \\ \\ O \\ \\ N \\ \end{array} \begin{array}{c} O \\ \\ \\ C \\ C \\ C \\ C \\ C \\ \\$$

● HCl

RN 344434-60-2 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-(1-methyl-3-piperidinyl)-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, dihydrochloride (9CI) (CA INDEX NAME)

RN 344434-62-4 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-oxo-2-[4-[1-(phenylmethyl)-3-piperidinyl]-1-piperazinyl]ethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, dihydrochloride (9CI) (CA INDEX NAME)

RN 344434-64-6 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-[(3-exo)-8-methyl-8-azabicyclo[3.2.1]oct-3-yl]-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, dihydrochloride, (4R)-rel-(-)- (9CI) (CA INDEX NAME)

Rotation (-). Absolute stereochemistry unknown.

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●2 HCl

RN 344434-67-9 HCAPLUS
CN 3.5-Pyridinedicarboxylic a

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-[(3-exo)-8-methyl-8-azabicyclo[3.2.1]oct-3-yl]-1-piperazinyl]-2-oxoethyl]-6-[2-(1-methyl-1H-imidazol-2-yl)ethyl]-, dimethyl ester, trihydrochloride (9CI) (CA INDEX NAME)

Relative stereochemistry.

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PAGE 2-A

→3 HC1

RN 344434-69-1 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-[(3-exo)-8-methyl-8-azabicyclo[3.2.1]oct-3-yl]-1-piperazinyl]-2-oxoethyl]-6-[2-(2-oxazolyl)ethyl]-, dimethyl ester, dihydrochloride (9CI) (CA INDEX NAME)

Relative stereochemistry.

PAGE 1-A

PAGE 2-A

**●**2 HC1

RN 344434-71-5 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-(8-ethyl-8-azabicyclo[3.2.1]oct-3-yl)-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

RN 344434-73-7 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-[8-(1-methylethyl)-8-azabicyclo[3.2.1]oct-3-yl]-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethylester, dihydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & \\ & & \\ &$$

●2 HCl

RN 344434-75-9 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-(8-acetyl-8-azabicyclo[3.2.1]oct-3-yl)-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 344434-77-1 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-(8-formyl-8-azabicyclo[3.2.1]oct-3-yl)-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 344434-79-3 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-(3S)-1-azabicyclo[2.2.2]oct-3-yl-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, dihydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 2-A

●2 HC1

RN 344434-81-7 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-(3R)-1-azabicyclo[2.2.2]oct-3-yl-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, dihydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 2-A

2 HCl,

RN 344434-83-9 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-(octahydro-2-methylcyclopenta[c]pyrrol-5-yl)-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethylester, dihydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\$$

●2 HCl

RN 344434-85-1 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-(2-acetyloctahydrocyclopenta[c]pyrrol-5-yl)-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, monohydrochloride (9CI) (CAINDEX NAME)

● HCl

RN 344434-87-3 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-(2-formyloctahydrocyclopenta[c]pyrrol-5-yl)-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 344434-89-5 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-[(3-exo)-8-methyl-8-azabicyclo[3.2.1]oct-3-yl]-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, monohydrochloride, (4R)-rel-(-)- (9CI) (CA INDEX NAME)

Rotation (-). Absolute stereochemistry unknown.

PAGE 2-A

HC1

RN 344436-14-2 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-(8-methyl-8-azabicyclo[3.2.1]oct-3-yl)-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344436-15-3 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-(8-methyl-8-azabicyclo[3.2.1]oct-3-yl)-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, 3-ethyl 5-methyl ester (9CI) (CA INDEX NAME)

RN 344436-16-4 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-(8-methyl-8-azabicyclo[3.2.1]oct-3-yl)-1-piperazinyl]-2-oxoethyl]-6-[2-(1-methyl-1H-imidazol-2-yl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344436-17-5 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-(8-methyl-8-azabicyclo[3.2.1]oct-3-yl)-1-piperazinyl]-2-oxoethyl]-6-[2-(2-oxazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344436-18-6 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-(1-azabicyclo[2.2.2]oct-3-yl)-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344570-44-1 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-[(3-endo)-8-methyl-8-azabicyclo[3.2.1]oct-3-yl]-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

Relative stereochemistry.

344570-45-2 HCAPLUS

RN

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-[(3-endo)-8-methyl-8-azabicyclo[3.2.1]oct-3-yl]-1-

piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl
ester, dihydrochloride (9CI) (CA INDEX NAME)

Relative stereochemistry.

PAGE 1-A

PAGE 2-A

2 HCl

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IC ICM C07D417-14
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CC 28-17 (Heterocyclic Compounds (More Than One Hetero Atom))
 Section cross-reference(s): 1

## "IT 344436-19-7

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(comparison compound; preparation of 4-phenyl-2-(2-oxo-2-piperazinylethyl)-1,4-dihydropyridine-3,5-dicarboxylates for

treatment of inflammation, asthma, allergic rhinitis, pain, and other bradykinin related disorders)

## IT 344434-28-2P 344434-38-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of 4-phenyl-2-(2-oxo-2-piperazinylethyl)-1,4-dihydropyridine-3,5-dicarboxylate bradykinin antagonists by reaction of benzylidenes with enamines and addition of piperazines)

## IT 344434-21-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of 4-phenyl-2-(2-oxo-2-piperazinylethyl)-1,4-dihydropyridine-3,5-dicarboxylate bradykinin antagonists by reaction of benzylidenes with enamines and addition of piperazines)

### IT 344434-19-1P 344435-96-7P

RL: BAC (Biological activity or effector, except adverse); BSU

# 10/813,647

(Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (preparation of 4-phenyl-2-(2-oxo-2-piperazinylethyl)-1,4dihydropyridine-3,5-dicarboxylate bradykinin antagonists by reaction of benzylidenes with enamines and addition of piperazines) 344433-95-0P 344433-97-2P 344433-99-4P 344434-01-1P 344434-03-3P 344434-05-5P 344434-07-7P 344434-09-9P 344434-11-3P 344434-13-5P 344434-15-7P 344434-17-9P 344434-24-8P 344434-26-0P 344434-30-6P 344434-32-8P 344434-34-0P 344434-36-2P 344434-40-8P 344434-42-0P 344434-44-2P 344434-46-4P 344434-48-6P 344434-50-0P 344434-52-2P 344434-54-4P 344434-56-6P 344434-58-8P 344434-60-2P 344434-62-4P 344434-64-6P 344434-67-9P 344434-69-1P 344434-71-5P 344434-73-7P 344434-75-9P 344434-77-1P 344434-79-3P 344434-81-7P 344434-83-9P 344434-85-1P 344434-87-3P 344434-89-5P 344436-14-2P 344436-15-3P 344436-16-4P 344436-17-5P 344436-18-6P 344570-44-1P 344570-45-2P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of 4-phenyl-2-(2-oxo-2-piperazinylethyl)-1,4dihydropyridine-3,5-dicarboxylate bradykinin antagonists by reaction of benzylidenes with enamines and addition of piperazines) REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L53 ANSWER 3 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2001:432889 HCAPLUS Full-text DOCUMENT NUMBER: 135:46173 TITLE: Preparation of 4-phenyl-2-thiazolylalkyl-1,4dihydropyridine-3,5-dicarboxylates and analogs as bradykinin antagonists INVENTOR(S): Kawai, Makoto; Murase, Noriaki; Ikeda, Takafumi; Shishido, Yuji; Nukui, Seiji; Okumura, Yoshiyuki; Kawamura, Mitsuhiro PATENT ASSIGNEE(S): Pfizer Inc., USA SOURCE: Eur. Pat. Appl., 60 pp. CODEN: EPXXDW DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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# 10/813,647

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				<		1210
			JP	2000-373447	A3	
						2000
						1207

OTHER SOURCE(S):

MARPAT 135:46173

GI

<sup>\*</sup> STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT

Title compds. (I) [wherein A = independently halo; Y1 = (CH2)m, CO, or SO; Y2 = N or CH; R1 and R2 = independently alkyl; R3 = (un)substituted (CH2)pcycloalkyl, or (bicyclo)alkyl; R4 = (un)substituted thiazolyl, imidazolyl, or oxazolyl; X = S, NH, alkylimino, or O; R5 = H or alkyl; R6 = alkyl or halo; m = 0-2; n = 0-5; p = 0-6; or the pharmaceutically acceptable salts thereof] were prepared as bradykinin antagonists for the treatment of inflammation, asthma, allergic rhinitis, pain, etc. For example, II was synthesized in a multi-step sequence involving the reaction of Me 3-(2,6-dichlorophenyl)-2-[3-(1,3-thiazol-2-yl)propanoyl]-2- propenoate with di-Me 3-amino-2-pentenedioate to give the 2-(2-methoxy-2-oxoethyl)-1,5-dihydropyridine-3,5-dicarboxylate (85%), which was converted to the 3,5-bis(methoxycarbonyl)-1,4-dihydro-2-pyridinylacetic acid derivative (80%) and amidated with 1-(1-piperazinylmethyl)cyclohexanecarbonitrile. In recombinant human bradykinin B2 receptor expressing CHO-K1 cells, I inhibited the binding of bradykinin to its receptor sites with IC50 values of 1 nM to 50 nM.

IT 344615-99-2P 344616-00-8P 344616-01-9P 344616-02-0P 344616-03-1P 344616-04-2P 344616-05-3P 344616-06-4P 344616-07-5P 344616-08-6P 344616-09-7P 344616-10-0P 344616-11-1P 344616-12-2P 344616-13-3P

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344616-15-5P 344616-16-6P 344616-17-7P
344616-19-9P 344616-20-2P 344616-21-3P
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344616-25-7P 344616-26-8P 344616-27-9P
344616-28-0P 344616-29-1P 344616-30-4P
344616-31-5P 344616-32-6P 344616-33-7P
344616-34-8P 344616-35-9P 344616-36-0P
344616-37-1P 344616-38-2P 344616-39-3P
344616-40-6P 344616-41-7P 344616-42-8P
344616-43-9P 344616-44-0P 344616-45-1P
344616-46-2P 344616-47-3P 344616-48-4P
344616-49-5P 344616-52-0P 344617-71-6P
344617-72-7P 344617-74-9P 344617-75-0P
344617-76-1P 344617-77-2P 344617-78-3P
344617-79-4P 344617-80-7P 344617-81-8P
344617-82-9P 344617-83-0P 344617-84-1P
344617-85-2P 344617-86-3P 344617-87-4P
344617-88-5P 344617-89-6P 344617-90-9P
344617-91-0P 344617-92-1P 344617-93-2P
344617-94-3P 344617-95-4P 344617-96-5P
344617-97-6P 344617-98-7P 344617-99-8P
344618-00-4P 344618-01-5P 344618-02-6P
344618-03-7P 344618-04-8P 344618-05-9P
344618-06-0P 344618-07-1P 344618-08-2P
344618-09-3P 344618-10-6P 344618-11-7P
RL: BAC (Biological activity or effector, except adverse); BSU
(Biological study, unclassified); SPN (Synthetic preparation);
THU (Therapeutic use); BIOL (Biological study); PREP
(Preparation); USES (Uses)
   (preparation of 4-phenyl-2-thiazolylalkyl-1,4-dihydropyridine-3,5-
   dicarboxylates and analogs by reaction of benzylidenes with
   enamines as bradykinin antagonists)
344615-99-2 HCAPLUS
3,5-Pyridinedicarboxylic acid, 2-[2-[4-[(1-cyanocyclohexyl)methyl]-
1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-
(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)
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RN

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PAGE 1-A

O OMe C1

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PAGE 2-A

RN 344616-00-8 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-[[1-(aminomethyl)cyclohexyl]methyl]-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

RN 344616-01-9 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[[1-[(ethylamino)methyl]cyclohexyl]methyl]-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

RN 344616-02-0 HCAPLUS

CN

3,5-Pyridinedicarboxylic acid, 2-[2-[4-[[1-[(acetylamino)methyl]cyclohexyl]methyl]-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

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RN 344616-03-1 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-[[1-[[(methylsulfonyl)amino]methyl]cyclohexyl]methyl]-1- 
piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester 
(9CI) (CA INDEX NAME)

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344616-04-2 HCAPLUS

RN

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-[(1-aminocyclohexyl)methyl]-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

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RN. 344616-05=3 -- HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[[1-[(ethylamino)methyl]cyclopentyl]methyl]-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344616-06-4 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[[1-[(dimethylamino)methyl]cyclopentyl]methyl]-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344616-07-5 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[[1-[(diethylamino)methyl]cyclopentyl]methyl]-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344616-08-6 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-oxo-2-[4-[[1-(1-pyrrolidinylmethyl)cyclopentyl]methyl]-1-piperazinyl]ethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344616-09-7 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-[[1[(cyclopentylamino)methyl]cyclopentyl]methyl]-1-piperazinyl]-2-

oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344616-10-0 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[8-(diethylamino)bicyclo[3.2.1]oct-3-yl]-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344616-11-1 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[2,2-dimethyl-3-[(methylsulfonyl)amino]propyl]-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344616-12-2 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-[(1-cyanocyclopentyl)methyl]-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344616-13-3 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-(2-cyano-2-methylpropyl)-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344616-15-5 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-[3-(acetylamino)-2,2-dimethylpropyl]-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344616-16-6 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-[[1-(aminomethyl)cyclopentyl]methyl]-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344616-17-7 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-(3-amino-2,2-dimethylpropyl)-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344616-19-9 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[3-(ethylamino)-2,2-dimethylpropyl]-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344616-20-2 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-[3-methyl-3-(2-oxo-1-pyrrolidinyl)butyl]-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344616-21-3 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[2,2-dimethyl-3-(2-oxo-1-pyrrolidinyl)propyl]-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344616-22-4 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-oxo-2-[4-[3-(2-oxo-1-pyrrolidinyl)propyl]-1-piperazinyl]ethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344616-23-5 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-oxo-2-[4-[4-(2-oxo-1-pyrrolidinyl)cyclohexyl]-1-piperazinyl]ethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344616-24-6 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[3-(1,1-dioxido-2-isothiazolidinyl)propyl]-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

344616-25-7 HCAPLUS

RN

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-oxo-2-[4-[3-(2-oxo-3-oxazolidinyl)propyl]-1-piperazinyl]ethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

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RN 344616-26-8 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-oxo-2-[4-[[1-[(2-oxo-1-pyrrolidinyl)methyl]cyclohexyl]methyl]-1-piperazinyl]ethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344616-27-9 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-oxo-2-[4-[[1-[(2-oxo-1-pyrrolidinyl)methyl]cyclopentyl]methyl]-1-piperazinyl]ethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344616-28-0 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-[2-(1-hydroxycyclohexyl)ethyl]-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

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RN 344616-29-1 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-[3-(2-methyl-5-oxo-1-pyrrolidinyl)propyl]-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

Me O 
$$CH_2$$
  $CH_2$   $CH$ 

RN 344616-30-4 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-[3-(3-methyl-2-oxo-1-pyrrolidinyl)propyl]-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344616-31-5 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-[2-[1-(acetylethylamino)cyclopentyl]ethyl]-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{Ac} \\ \text{Et\_N} \\ \text{CH}_2\text{-CH}_2 \\ \text{N} \\ \text{CH}_2 \\ \text{CH}_$$

RN 344616-32-6 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-[[1[(acetylethylamino)methyl]cyclopentyl]methyl]-1-piperazinyl]-2oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344616-33-7 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro2-[2-oxo-2-[4-[2-[1-(2-oxo-1-pyrrolidinyl)cyclopentyl]ethyl]-1piperazinyl]ethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI)
(CA INDEX NAME)

RN 344616-34-8 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[2[1-(diethylamino)cyclopentyl]ethyl]-1-piperazinyl]-2-oxoethyl]-1,4-

dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344616-35-9 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-oxo-2-[4-[4-(2-oxo-1-pyrrolidinyl)butyl]-1-piperazinyl]ethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
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N & & & & & \\
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N$$

RN 344616-36-0 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-[4-methyl-4-(2-oxo-1-pyrrolidinyl)pentyl]-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344616-37-1 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-oxo-2-[4-[2-[1-[(2-oxo-1-pyrrolidinyl)methyl]cyclopentyl]ethyl]-1-piperazinyl]ethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester

(9CI) (CA INDEX NAME)

RN 344616-38-2 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro2-[2-[4-[4-(4-morpholinyl)butyl]-1-piperazinyl]-2-oxoethyl]-6-[2(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

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RN 344616-39-3 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[3-ethyl-3-(2-oxo-1-pyrrolidinyl)pentyl]-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344616-40-6 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[2-[1-[(diethylamino)methyl]cyclopentyl]ethyl]-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344616-41-7 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-oxo-2-[4-[4-(2-oxo-1-piperidinyl)butyl]-1-piperazinyl]ethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

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RN 344616-42-8 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-oxo-2-[4-[4-(1-piperidinyl)butyl]-1-piperazinyl]ethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

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$$\bigcirc^{k}$$

RN 344616-43-9 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-[2-[1-(aminocarbonyl)cyclopentyl]ethyl]-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c} O \\ \downarrow \\ NH2 \\ CH2-CH2-CH2 \\ \hline \end{array}$$

RN 344616-44-0 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-[1[(acetylamino)methyl]cyclohexyl]-1-piperidinyl]-2-oxoethyl]-4-(2,6dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl
ester (9CI) (CA INDEX NAME)

RN 344616-45-1 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[1-[(ethylamino)methyl]cyclohexyl]-1-piperidinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344616-46-2 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-[[1(aminomethyl)cyclobutyl]methyl]-1-piperazinyl]-2-oxoethyl]-4-(2,6dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl
ester (9CI) (CA INDEX NAME)

RN 344616-47-3 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[[1-[(ethylamino)methyl]cyclobutyl]methyl]-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344616-48-4 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-oxo-2-[4-[8-(2-oxo-1-pyrrolidinyl)bicyclo[3.2.1]oct-3-yl]-1-piperazinyl]ethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344616-49-5 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-[4-(4-morpholinyl)-4-oxobutyl]-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

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RN 344616-52-0 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-[(1-cyanocyclohexyl)methyl]1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA
INDEX NAME)

## x HCl

## 344617-71-6 HCAPLUS RNCN

3,5-Pyridinedicarboxylic acid, 2-[2-[4-[[1-(aminomethyl)cyclohexyl]methyl]-1-piperazinyl]-2-oxoethyl]-4-(2,6dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, dihydrochloride (9CI) (CA INDEX NAME)

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RN 344617-72-7 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[[1-[(ethylamino)methyl]cyclohexyl]methyl]-1-piperazinyl]-2-oxoethyl]1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester,
hydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A

MeO\_C

C1

CH2

CH2

CH2

CH2

CH2

PAGE 2-A

CH2\_NHEt

RN 344617-74-9 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-[[1-[[(methylsulfonyl)amino]methyl]cyclohexyl]methyl]-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

$$\qquad \qquad CH_2-NH \ \Big\|$$

x HCl

RN 344617-75-0 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-[(1-aminocyclohexyl)methyl]-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A

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●x HCl

RN 344617-76-1 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[[1[(ethylamino)methyl]cyclopentyl]methyl]-1-piperazinyl]-2-oxoethyl]1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester,
hydrochloride (9CI) (CA INDEX NAME)

x HCl

RN 344617-77-2 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-oxo-2-[4-[[1-(1-pyrrolidinylmethyl)cyclopentyl]methyl]-1-piperazinyl]ethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A

$$\begin{array}{c|c} & & & \\ & & & \\$$

MeO\_U

PAGE 2-A

●x HCl

RN 344617-78-3 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-[[1[(cyclopentylamino)methyl]cyclopentyl]methyl]-1-piperazinyl]-2oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A

$$\begin{array}{c|c} & & & & \\ & & & \\ & &$$

MeO\_U

PAGE 2-A

x HCl

RN 344617-79-4 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[8-(diethylamino)bicyclo[3.2.1]oct-3-yl]-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

●x HCl

RN 344617-80-7 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-[(1-cyanocyclopentyl)methyl]-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} CN & MeO & C1 \\ \hline CH_2 & M & CH_2 \\ \hline CH_2 & CH_2 \\ \hline$$

x HCl

RN 344617-81-8 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-(2-cyano-2-methylpropyl)-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

RN 344617-82-9 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-[3-(acetylamino)-2,2-dimethylpropyl]-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

RN 344617-83-0 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-[[1-(aminomethyl)cyclopentyl]methyl]-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

●x HCl

RN 344617-84-1 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-(3-amino-2,2-dimethylpropyl)-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

RN 344617-85-2 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[3-(ethylamino)-2,2-dimethylpropyl]-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

RN 344617-86-3 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-[3-methyl-3-(2-oxo-1-pyrrolidinyl)butyl]-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

●x HCl

RN 344617-87-4 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[2,2-dimethyl-3-(2-oxo-1-pyrrolidinyl)propyl]-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

●x HCl

RN 344617-88-5 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro2-[2-oxo-2-[4-[3-(2-oxo-1-pyrrolidinyl)propyl]-1piperazinyl]ethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester,
hydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
 & O & MeO & U & C1 \\
 & N & CH_2 & HN & C & OMe & C1 \\
 & & CH_2 & U & CH_2 & C & OMe & C1
\end{array}$$

●x HCl

RN 344617-89-6 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-oxo-2-[4-[4-(2-oxo-1-pyrrolidinyl)cyclohexyl]-1-piperazinyl]ethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

●x HCl

RN 344617-90-9 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[3-(1,1-dioxido-2-isothiazolidinyl)propyl]-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

●x HCl

RN 344617-91-0 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-oxo-2-[4-[3-(2-oxo-3-oxazolidinyl)propyl]-1-piperazinyl]ethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

x HCl

RN 344617-92-1 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-oxo-2-[4-[[1-[(2-oxo-1-pyrrolidinyl)methyl]cyclohexyl]methyl]-1-piperazinyl]ethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & \\ & & \\ &$$

●x HCl

RN 344617-93-2 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-oxo-2-[4-[[1-[(2-oxo-1-pyrrolidinyl)methyl]cyclopentyl]methyl]-1-piperazinyl]ethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

PAGE 2-A

●x HCl

RN 344617-94-3 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro2-[2-[4-[2-(1-hydroxycyclohexyl)ethyl]-1-piperazinyl]-2-oxoethyl]6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI)
(CA INDEX NAME)

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ОН

●x HCl

RN 344617-95-4 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-[3-(2-methyl-5-oxo-1-pyrrolidinyl)propyl]-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

●x HCl

RN 344617-96-5 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-[3-(3-methyl-2-oxo-1-pyrrolidinyl)propyl]-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

Me 
$$N$$
 (CH2) 3  $N$  CH2  $N$  CH

●x HCl

RN 344617-97-6 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-[2-[1-(acetylethylamino)cyclopentyl]ethyl]-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

●x HCl

RN 344617-98-7 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-[[1[(acetylethylamino)methyl]cyclopentyl]methyl]-1-piperazinyl]-2oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

●x HCl

RN 344617-99-8 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro2-[2-oxo-2-[4-[2-[1-(2-oxo-1-pyrrolidinyl)cyclopentyl]ethyl]-1piperazinyl]ethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester,
hydrochloride (9CI) (CA INDEX NAME)

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●x HCl

RN 344618-00-4 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[2[1-(diethylamino)cyclopentyl]ethyl]-1-piperazinyl]-2-oxoethyl]-1,4dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride
(9CI) (CA INDEX NAME)

●x HCl

RN 344618-01-5 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-oxo-2-[4-[4-(2-oxo-1-pyrrolidinyl)butyl]-1-piperazinyl]ethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

x HCl

RN 344618-02-6 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-[4-methyl-4-(2-oxo-1-pyrrolidinyl)pentyl]-1-piperazinyl]-2-oxoethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

x HCl

RN 344618-03-7 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-oxo-2-[4-[2-[1-[(2-oxo-1-pyrrolidinyl)methyl]cyclopentyl]ethyl]-1-piperazinyl]ethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A

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●x HCl

RN 344618-04-8 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro2-[2-[4-[4-(4-morpholinyl)butyl]-1-piperazinyl]-2-oxoethyl]-6-[2(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA
INDEX NAME)

PAGE 1-A

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$$\binom{\circ}{h}$$

●x HCl

RN 344618-05-9 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[3-ethyl-3-(2-oxo-1-pyrrolidinyl)pentyl]-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

x--HCl----

RN 344618-06-0 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[2-[1-[(diethylamino)methyl]cyclopentyl]ethyl]-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

●x HCl

RN 344618-07-1 HCAPLUS

3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-CN.2-[2-oxo-2-[4-[4-(2-oxo-1-piperidinyl)butyl]-1-piperazinyl]ethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

HCl

344618-08-2 HCAPLUS

RN3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-CN2-[2-oxo-2-[4-[4-(1-piperidinyl)butyl]-1-piperazinyl]ethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A

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●x HCl

344618-09-3 HCAPLUS

RN

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-[2-[1-(aminocarbonyl)cyclopentyl]ethyl]-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

●x HCl

RN 344618-10-6 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[1-[(ethylamino)methyl]cyclohexyl]-1-piperidinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

RN 344618-11-7 HCAPLUS

3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-oxo-2-[4-[8-(2-oxo-1-pyrrolidinyl)bicyclo[3.2.1]oct-3-yl]-1-piperazinyl]ethyl]-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester, hydrochloride (9CI) (CA INDEX NAME)

●x HCl

# IT 344616-56-4P 344616-59-7P 344616-64-4P 344617-59-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of 4-phenyl-2-thiazolylalkyl-1,4-dihydronyl-2-thiazolylalkyl-2-thiazolylalkyl-2-thiazolylalkyl-2-thiazolylalkyl-2

(preparation of 4-phenyl-2-thiazolylalkyl-1,4-dinydropyridine-3,5-dicarboxylates and analogs by reaction of benzylidenes with enamines as bradykinin antagonists)

RN 344616-56-4 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[[1-[[(1,1-dimethylethoxy)carbonyl]amino]methyl]cyclohexyl]methyl]-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-,dimethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

344616-59-7 HCAPLUS RN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[[1-CN[[[(1,1-dimethylethoxy)carbonyl]ethylamino]methyl]cyclohexyl]methy 1]-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

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RN 344616-64-4 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[[1-[[(1,1-dimethylethoxy)carbonyl]ethylamino]methyl]cyclopentyl]meth
yl]-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 344617-59-0 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[1-[[[(1,1-dimethylethoxy)carbonyl]ethylamino]methyl]cyclohexyl]-1-piperidinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-thiazolyl)ethyl]-,dimethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

ICM C07D417-06
ICS C07D417-12; C07D417-14; A61P009-00; A61K031-496
CC 28-7 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1
IT 344615-99-2P 344616-00-8P 344616-01-9P
344616-02-0P 344616-03-1P 344616-04-2P
344616-05-3P 344616-06-4P 344616-07-5P
344616-08-6P 344616-09-7P 344616-10-0P

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344616-11-1P 344616-12-2P 344616-13-3P
    344616-15-5P 344616-16-6P 344616-17-7P
    344616-19-9P 344616-20-2P 344616-21-3P
    344616-22-4P 344616-23-5P 344616-24-6P
    344616-25-7P 344616-26-8P 344616-27-9P
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    344616-49-5P 344616-52-0P 344617-71-6P
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    344618-06-0P 344618-07-1P 344618-08-2P
    344618-09-3P 344618-10-6P 344618-11-7P
    RL: BAC (Biological activity or effector, except adverse); BSU
     (Biological study, unclassified); SPN (Synthetic preparation);
     THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (preparation of 4-phenyl-2-thiazolylalkyl-1,4-dihydropyridine-3,5-
       dicarboxylates and analogs by reaction of benzylidenes with
       enamines as bradykinin antagonists)
                                   195194-80-0P
                                                  198478-03-4P
                    184042-65-7P
IT
     134578-93-1P
                    344434-93-1P
                                   344434-95-3P
                                                  344434-97-5P
     344434-91-9P
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     344616-78-0P
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                                                   344616-86-0P
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                    344616-88-2P
     344616-87-1P
                                                   344616-94-0P
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     344617-19-2P
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                    344617-30-7P
                                                   344617-36-3P
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                                   344617-35-2P
     344617-33-0P
     344617-37-4P
                    344617-38-5P
                                   344617-39-6P
                                                   344617-40-9P
                                   344617-43-2P
                                                   344617-44-3P
     344617-41-0P
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                                   344617-47-6P
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     344617-45-4P
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     344617-53-4P
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                                   344617-63-6P
     344617-61-4P
                    344617-62-5P
                    344617-66-9P
                                   344617-67-0P
                                                   344617-68-1P
     344617-65-8P
     344617-69-2P
                    344617-70-5P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP
     (Preparation); RACT (Reactant or reagent)
        (preparation of 4-phenyl-2-thiazolylalkyl-1,4-dihydropyridine-3,5-
```

#### 10/813,647

dicarboxylates and analogs by reaction of benzylidenes with enamines as bradykinin antagonists)

REFERENCE COUNT:

3 THERE ARE 3 CITED REFERENCES AVAILABLE

FOR THIS RECORD. ALL CITATIONS AVAILABLE

IN THE RE FORMAT

L53 ANSWER 4 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1999:928 HCAPLUS Full-text

DOCUMENT NUMBER:

130:191795

TITLE:

Inhibition of brain choline uptake by isoarecolone and lobeline derivatives: implications for potential vector-mediated

brain drug delivery

AUTHOR (S):

Metting, Traci L.; Burgio, David E.; Terry, Alvin V., Jr.; Beach, J. Warren; McCurdy,

Chris R.; Allen, David D.

CORPORATE SOURCE:

Department of Pharmaceutical Sciences, School of Pharmacy, Texas Tech University Health Sciences Center, School of Pharmacy, Amarillo,

TX, 79106-1712, USA

SOURCE:

Neuroscience Letters (1998), 258(1),

25-28

CODEN: NELED5; ISSN: 0304-3940 Elsevier Science Ireland Ltd.

DOCUMENT TYPE: LANGUAGE:

PUBLISHER:

Journal English

Delivery of certain compds. to brain is restricted by the nature of the blood-brain barrier (BBB). Many valuable pharmaceuticals are excluded from the CNS due to hydrophilicity or charge. These limitations have been overcome by numerous methods. One method we use is to take advantage of saturable nutrient transporters located at the barrier. These systems transport hydrophilic and charged nutrients into brain such as choline, a quaternized neurotransmitter precursor. Using knowledge of their substrate specificity, it is possible to deliver agents into brain using these nutrient carriers. In this report, derivs. of lobeline and isoarecolone were evaluated to determine if they may gain access to brain by the blood-brain barrier basic amine transporter using the in situ brain perfusion technique. These compds. do bind the

blood-brain barrier basic amine transporter and may enter brain by this transport system.

IT 90-69-7D, Lobeline, derivs.

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (inhibition of brain choline uptake by isoarecolone and lobeline derivs.: implications for potential vector-mediated brain drug delivery)

RN 90-69-7 HCAPLUS

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

CC 1-11 (Pharmacology)

IT 90-69-7D, Lobeline, derivs. 115713-16-1D, Isoarecolone,
 derivs. 200572-47-0 220803-69-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (inhibition of brain choline uptake by isoarecolone and lobeline derivs.: implications for potential vector-mediated brain drug delivery)

### 10/813,647

REFERENCE COUNT:

THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE

IN THE RE FORMAT

L53 ANSWER 5 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN

19

ACCESSION NUMBER:

1997:592266 HCAPLUS Full-text

DOCUMENT NUMBER: .

127:234256

TITLE:

Novel 4-phenyl-2-(aminoalkyl)-1,4dihydropyridine-3,5-dicarboxylic acid

derivatives as bradykinin receptor antagonists

INVENTOR(S):

Ikeda, Takafumi

PATENT ASSIGNEE(S):

Pfizer Inc., USA

SOURCE:

Eur. Pat. Appl., 23 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	O. KIND DATE		APPLICATION NO.	DATE
EP 790239	A1	19970820	EP 1997-200232	1997 0129
R: AT, BE, CH,	B1 DE, DK	20010912 , ES, FI, F	< R, GB, GR, IE, IT, LI,	
NL, PT, SE AT 205478	E	20010915	AT 1997-200232	1997 0129
ES 2162186	Т3	20011216	< ES 1997-200232	1997 0129
PT 790239	T	20020130	< PT 1997-200232	1997 0129
US 5861402	A	19990119	< US 1997-797681	1997 0131
JP 09227521	A2	19970902	< JP 1997-42869	1997 0213
CA 2197739	AA		< CA 1997-2197739	1997 021 <b>7</b>
CA 2197739 GR 3037064	С Т3	20000215 20020131	< GR 2001-401936	2001 1030
PRIORITY APPLN. INFO.:			< WO 1996-IB131	A 1996 0219
			<u> </u>	A 1997 0129
			<	

OTHER SOURCE(S):

MARPAT 127:234256

IT

AB Title compds. I [A1, A2= halo, H; X1 = CH2, CO, SO, SO2; X2 = CH2, CO; Y = aminoalkyl; R1 = morpholinoalkylphenyl, alkoxycarbonyl, acyl, dihydroimidazolyl, formamidino, guanidino, dihydroimidazolylamino, H, alkyl, piperidinyl, cycloalkyl, bicycloalkyl, tricycloalkyl, azacyclo-, azabicyclo-, azatricycloalkyl, bicycloalkenyl, benzocycloalkyl, heterocyclic]were prepared and have excellent bradykinin antagonistic activity. Thus, the dihydropyridine II [R = CH2CO2Me] was methylenated, treated with N-methylpiperazine, and deacrboxylated to give II [R = 2-(4-methylpiperazino) ethyl]. Various I had IC50 of 10Nm - 1μM for inhibition of [3H]bradykinin binding at its receptor.

195145-32-5P 195145-34-7P 195145-36-9P

195145-38-1P 195145-57-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)

(preparation of aryldihydropyridinedicarboxylates as bradykinin receptor antagonists)

RN 195145-32-5 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-(3-hydroxypropyl)-1-piperazinyl]-2-oxoethyl]-6-(2phenylethyl)-, dimethyl ester (9CI) (CA INDEX NAME)

RN 195145-34-7 HCAPLUS

3,5-Pyridinedicarboxylic acid, 2-[2-[4-(3-azidopropyl)-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-(2-phenylethyl)-, dimethyl ester (9CI) (CA INDEX NAME)

RN 195145-36-9 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-(3-aminopropyl)-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-(2-

phenylethyl)-, dimethyl ester (9CI) (CA INDEX NAME)

RN 195145-38-1 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-[3-[[bis[[(1,1-

dimethylethoxy) carbonyl]amino]methylene]amino]propyl]-1-

piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-(2-

phenylethyl) -, dimethyl ester (9CI) (CA INDEX NAME)

RN 195145-57-4 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-

2-[2-[4-[3-[(methylsulfonyl)oxy]propyl]-1-piperazinyl]-2-oxoethyl]-

6-(2-phenylethyl)-, dimethyl ester (9CI) (CA INDEX NAME)

IT 195145-31-4P 195145-37-0P 195145-39-2P

195145-40-5P 195145-41-6P 195145-43-8P

195145-44-9P 195145-47-2P 195145-49-4P

195145-51-8P 195145-55-2P 195145-56-3P

RL: SPN (Synthetic preparation); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of aryldihydropyridinedicarboxylates as bradykinin receptor antagonists)

RN 195145-31-4 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-

2-[2-[4-(3-hydroxypropyl)-1-piperazinyl]-2-oxoethyl]-6-(2-phenylethyl)-, dimethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 195145-37-0 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-(3-aminopropyl)-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-(2-phenylethyl)-, dimethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 195145-39-2 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-[3[(aminoiminomethyl)amino]propyl]-1-piperazinyl]-2-oxoethyl]-4-(2,6dichlorophenyl)-1,4-dihydro-6-(2-phenylethyl)-, dimethyl ester,
dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

RN 195145-40-5 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(2-chlorophenyl)-1,4-dihydro-2-[2-(4-methyl-1-piperazinyl)-2-oxoethyl]-6-(2-phenylethyl)-, dimethyl ester (9CI) (CA INDEX NAME)

RN 195145-41-6 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-difluorophenyl)-1,4-dihydro2-[2-(4-methyl-1-piperazinyl)-2-oxoethyl]-6-(2-phenylethyl)-,
dimethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 195145-43-8 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[3-(4,5-dihydro-1H-imidazol-2-yl)propyl]-1-piperazinyl]-2-oxoethyl]1,4-dihydro-6-(2-phenylethyl)-, dimethyl ester, monohydriodide
monohydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{MeO} \stackrel{\text{O}}{\longleftarrow} \text{C1} \\ \text{CH}_2 \\ \text{Ph} \stackrel{\text{CH}_2}{\longrightarrow} \text{CH}_2 \\ \text{Ph} \stackrel{\text{CH}_2}{\longrightarrow} \text{CH}_2 \\ \end{array}$$

● HCl

● HI

RN 195145-44-9 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[(1,1-dimethylethoxy)carbonyl]-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-(2-phenylethyl)-, dimethyl ester (9CI) (CA INDEX NAME)

RN 195145-47-2 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-(4,5-dihydro-1H-imidazol-2-yl)-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-(2-phenylethyl)-, dimethyl ester, monohydriodide (9CI) (CA INDEX NAME)

HI

RN 195145-49-4 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-[2-[(aminoiminomethyl)amino]ethyl]-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-(2-phenylethyl)-, dimethyl ester, dihydrochloride (9CI) (CA INDEX NAME)

●2 HC1

RN 195145-51-8 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-(4-acetyl-1-piperazinyl)-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-(2-phenylethyl)-, dimethyl ester (9CI) (CA INDEX NAME)

RN 195145-55-2 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-(hexahydro-4-methyl-1H-1,4-diazepin-1-yl)-2-oxoethyl]-1,4-dihydro-6-(2-phenylethyl)-, dimethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

RN 195145-56-3 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-(hexahydro-4-methyl-1H-1,4-diazepin-1-yl)-2-oxoethyl]-1,4-dihydro-6-(2-phenylethyl)-, dimethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

PAGE 2-A

R\_C\_OMe

HC1

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IC
    ICM C07D211-90
    ICS C07D401-12; C07D453-02; C07D451-02
CC.
    27-16 (Heterocyclic Compounds (One Hetero Atom))
    Section cross-reference(s): 1
     6425-46-3P
                 51013-67-3P, 4-Morpholinomethylaniline
                                                           63547-62-6P
                                  195145-26-7P 195145-27-8P
     178377-49-6P
                   178377-50-9P
     195145-32-5P 195145-34-7P 195145-36-9P
    195145-38-1P 195145-57-4P
    RL: RCT (Reactant); SPN (Synthetic preparation); PREP
     (Preparation); RACT (Reactant or reagent)
        (preparation of aryldihydropyridinedicarboxylates as bradykinin
        receptor antagonists)
                   195145-30-3P 195145-31-4P
IT
     195145-28-9P
     195145-37-0P 195145-39-2P 195145-40-5P
     195145-41-6P
                   195145-42-7P 195145-43-8P
     195145-44-9P
                   195145-45-0P 195145-47-2P
     195145-48-3P 195145-49-4P
                                 195145-50-7P
                                                  195145-54-1P
     195145-51-8P
                    195145-52-9P
                                   195145-53-0P
     195145-55-2P 195145-56-3P
    RL: SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (preparation of aryldihydropyridinedicarboxylates as bradykinin
        receptor antagonists)
```

L53 ANSWER 6 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1997:587253 HCAPLUS Full-text

DOCUMENT NUMBER:

127:248125

TITLE:

Preparation of 2-(piperazinylcarbonylmethyl)-3,5-bis(methoxycarbonyl)-1,4-dihydropyridines

as bradykinin antagonists.

INVENTOR(S):

Ikeda, Takafumi

PATENT ASSIGNEE(S):

Pfizer Pharmaceuticals Inc., Japan; Pfizer

Inc.

SOURCE:

PCT Int. Appl., 42 pp.

# 10/813,647

CODEN: PIXXD2

DOCUMENT TYPE:

. Patent English

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	<b>-</b> -		KIN		DATE			AP)	PLI	CAT	ION	NO.		DATE
WO 9730048			A1		1997	0821		WO	19	97-:	IB58			1997 0127
RW: AT,	MX, BE,	NO, CH,	NZ, DE,	PL, DK,	, RO,	RU, FI,	SG, FR,	II SI GI	I, B,	IS, SK, GR,	TR, IE,	UA, IT,	US, LU,	LK, UZ, VN MC,
SN, AU 9713964	TD,	TG	<b>A1</b>		1997	0902		AU	19	97-:	1396	4		1997
										_		•		0127
EP 882044			A1		1998	1209					9004	01		1997 0127
EP 882044			B1		2002	0717			<-	-				
R: AT,		СH,	DE,	DK,	ES,			GI	₹,	IT,	LI,	LU,	NL,	SE,
CN 1211251			Α		1999	0317					1922	40		1997 0127
JP 11507949			Т2		1999	0713				- 97-5	5291	38		1997 0127
JP 3167335					2001					-				0127
BR 9707568			Α		1999	0727					7568			1997 0127
AT 220676			, E		2002	0815				- 97-9	9004	01	÷	1997 0127
CA 2245857			С		2002	1001		CA		- 97-2		357		
									<-	_				1997 0127
CA 2245857 PT 882044			AA T		19970 2002:			PT	19	97-9	9004	01		1997 0127
ES 2177921			т3		2002	1216		ES	<- 19		9004	01		1997 0127
ZA 9701357			A		19980	0818		ZA	<- 19		1357			1997
NO 9803776			Α		19980	0818		NO	<- 19		3776			0218
									· <-	-				1998 0818

#### 10/813,647

Α 20001017 US 1999-125137 US 6131226 1999 0201 **/**--PRIORITY APPLN. INFO .: WO 1996-IB132 1996 0219 <--WO 1997-IB58 W 1997 0127

OTHER SOURCE(S):

MARPAT 127:248125

GΙ

AB Title compds. [I; Al, A2 = halo; X = CO, SO2, SO(CH2)n; n = 0-2; R1 = 8azabicyclo[3.2.1]octyl, quinuclidinyl, bicyclo[3.3.0]octyl, cycloalkyl, 2,3,5,6tetrahydro-4H-thiopyranyl, (substituted) cycloalkylalkyl], were prepared I have excellent bradykinin antagonistic activity and are useful for the treatment of inflammation, cardiovascular disease, pain, common cold, allergies, asthma, pancreatitis, burns, virus infection, head injury, or multiple trauma. Thus, Me 2-(4,6- dichlorophenylmethylidene)-3-oxo-4-phenylthiobutanoate (preparation given) and di-Me 3-aminoglutaconate were heated at 120° for 3 h to give 40.6% di-Me 4-(2,6dichlorophenyl)-2- methoxycarbonylmethyl-6-phenylthiomethyl-1,4-dihydropyridine-3,5dicarboxylate. This was oxidized to the phenylsulfinyl derivative, which was partially saponified followed by amidation with 1-(8-methyl-8-azabicyclo[3.2.1]oct-3yl)piperazine using N-1-ethyl-3-(3-dimethylaminopropyl)carbodiimide hydrochloride in CH2Cl2 to give di-Me 4-(2,6-dichlorophenyl)-2-[4-(8-methyl-8- azabicyclo[3.2.1]oct-3yl)-1-piperazinyl]carbonylmethyl-6- phenylsulfinylmethyl-1,4-dihydropyridine-3,5dicarboxylate dihydrochloride. I inhibited [3H]bradykinin binding to ileum prepns. with IC50 = 0.2-10 nM.

IT 195503-94-7P 195503-95-8P 195503-96-9P 195504-30-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of 2-(piperazinylcarbonylmethyl)-3,5bis(methoxycarbonyl)-1,4-dihydropyridines as bradykinin antagonists)

RN 195503-94-7 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-(8-methyl-8-azabicyclo[3.2.1]oct-3-yl)-1-piperazinyl]-2-oxoethyl]-6-(2-oxo-2-phenylethyl)-, dimethyl ester, dihydrochloride (9CI) (CA INDEX NAME)

2 HC1

RN 195503-95-8 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-(1-azabicyclo[2.2.2]oct-3-yl)-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-(2-oxo-2-phenylethyl)-, dimethyl ester, dihydrochloride (9CI) (CA INDEX NAME)

●2 HC1

RN 195503-96-9 HCAPLUS -

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-(octahydro-5-hydroxy-2-pentalenyl)-1-piperazinyl]-2-oxoethyl]-6-(2-oxo-2-phenylethyl)-, dimethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

HO N MeO CH2 C1 C1 Ph C CH2 
$$\mathbb{C}$$
 C1  $\mathbb{C}$  C1  $\mathbb{C}$  Ph C CH2  $\mathbb{C}$  C1  $\mathbb{C}$  C1

● HCl

RN 195504-30-4 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-(1,3-dioxolan-2-yl)-2-phenylethyl]-1,4-dihydro-6-[2-[4-(8-methyl-8-azabicyclo[3.2.1]oct-3-yl)-1-piperazinyl]-2-oxoethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

IT 195504-05-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of 2 / nineraginal carbonal methyl) = 3.5-

(preparation of 2-(piperazinylcarbonylmethyl)-3,5-bis(methoxycarbonyl)-1,4-dihydropyridines as bradykinin antagonists)

RN 195504-05-3 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-(8-methyl-8-azabicyclo[3.2.1]oct-3-yl)-1-piperazinyl]-2-oxoethyl]-6-(2-oxo-2-phenylethyl)-, dimethyl ester (9CI) (CA INDEX NAME)

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TC
     TCM C07D451-04
     ICS A61K031-445; C07D453-02; C07D211-90; C07D405-12; C07D409-12
CC
     28-17 (Heterocyclic Compounds (More Than One Hetero Atom))
     Section cross-reference(s): 1
IT
     195503-93-6P 195503-94-7P 195503-95-8P
     195503-96-9P
                    195503-97-0P
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                                   195504-02-0P
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                                   195504-14-4P
                                                   195504-15-5P
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                                                   195504-27-9P
     195504-30-4P
                    195504-31-5P
     RL: BAC (Biological activity or effector, except adverse); BSU
     (Biological study, unclassified); SPN (Synthetic preparation);
     THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (preparation of 2-(piperazinylcarbonylmethyl)-3,5-
        bis(methoxycarbonyl)-1,4-dihydropyridines as bradykinin
        antagonists)
     51849-20-8P
IT
                   63547-62-6P
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     195504-06-4P
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                                                   195504-29-1P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP
     (Preparation); RACT (Reactant or reagent)
        (preparation of 2-(piperazinylcarbonylmethyl)-3,5-
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### 10/813,647

bis(methoxycarbonyl)-1,4-dihydropyridines as bradykinin
antagonists)

L53 ANSWER 7 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1996:404662 HCAPLUS Full-text

DOCUMENT NUMBER:

125:86676

TITLE:

Preparation of 2-(piperazinocarbonylmethyl)-

1,4-dihydropyridinedicarboxylates as

bradykinin antagonists

INVENTOR(S):

Ito, Fumitaka; Kondo, Hiroshi; Hageman, David

L.; Lowe, John A., III; Nakanishi, Susumu;

Vinick, Fredric J.

PATENT ASSIGNEE(S):

Pfizer Pharmaceuticals Inc., Japan

SOURCE:

PCT Int. Appl., 64 pp.

DOCUMENT TYPE:

CODEN: PIXXD2
Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9606083		19960229	WO 1994-JP1398	1994
W: JP			<b>&lt;</b> ,	0824
CA 2198231	AA	19960229	CA 1995-2198231	1995
CA 2198231	. С	19991207	<	0526
WO 9606082	A1		WO 1995-IB400	1995
			< ·	0526
W: AU, CA RW: AT, BE PT, SE	C, CH, DE, DK	, KR, MX, I C, ES, FR, C	NO, NZ, US GB, GR, IE, IT, LU, MC,	NL,
AU 9524166	A1	19960314	AU 1995-24166	1995
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AU 689587 EP 777653		19980402 19970611	EP 1995-918113	
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EP 777653	ם1	20010922		
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CN 1156449		19970806	CN 1995-194758	1995
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CN 1087737	В	20020717	TD 1006 507006	
JP 09510992	T2	19971104	JP 1996-507896	1995 0526
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JP 3001978	В2	20000124		
AT 204567	E	20010915	AT 1995-918113	1995 0526
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ES 2159637	Т3	20011016	ES 1995-918113	

# 10/813,647

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			·		0/11
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IL 114968	A1	19990817	IL 1995-114968		4005
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ŻA 9707057	A	19970224	ZA 1997-7057		
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			<		0221
us 5859011	Α	19990112	US 1997-793561		
03 3039011	, A	19990112	03 1997-793361		1997
					0701
~P 202600F		00000101	<		
GR 3036907	т3	20020131	GR 2001-401777		
					2001
					1016
		•	<		
PRIORITY APPLN. INFO.:			WO 1994-JP1398	Α	
					1994
					0824
			<		
			EP 1995-918113	A	
					1995
					0526
			<		
			WO 1995-IB400	· W	
			1555 15100	•••	1995
					0526
			< '		0320
			<b>\</b>		

OTHER SOURCE(S):

MARPAT 125:86676

R6 R5 R5 CO2R4 NR1

Title compds. [I; R1 = H, (un) substituted (cyclo) alkyl, azacycloalkyl, etc.; R2 = H, AB alkyl, Ph, etc.; R3,R4 = alkyl; R5,R6 = halo; Z = bond, CH2, O, CO, etc.] were prepared Thus, 2,6-Cl2C6H3CH:C(CO2Me)COCH2CH2Ph was cyclocondensed with MeO2CCH:C(NH2)CO2Me (preparation each given) and the product amidated by N-methylpiperazine to give I (R1 = R3 = R4 = Me, R2 = Ph, R5 = R6 = C1, Z = CH2). I had IC50 of 5nM to 1 $\mu$ M against bradykinin binding at ileum tissue preparation in vitro. IT 178376-98-2P 178377-26-9P 178377-27-0P 178377-28-1P 178377-29-2P 178377-30-5P 178377-31-6P 178377-32-7P 178377-33-8P 178377-34-9P 178377-35-0P 178377-36-1P 178377-37-2P 178377-38-3P 178377-39-4P 178377-40-7P 178377-41-8P 178377-42-9P 178377-43-0P 178377-44-1P 178377-45-2P 178377-46-3P 178377-47-4P 178377-48-5P 178377-82-7P 178377-83-8P 178377-84-9P 178377-85-0P 178377-86-1P 178377-87-2P 178377-88-3P 178377-89-4P 178377-90-7P 178377-91-8P 178377-92-9P 178377-93-0P 178377-94-1P 178377-95-2P 178377-96-3P 178377-97-4P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of 2-(piperazinocarbonylmethyl)-1,4dihydropyridinedicarboxylates as bradykinin antagonists) RN 178376-98-2 HCAPLUS CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-(4-methyl-1-piperazinyl)-2-oxoethyl]-6-(2-phenylethyl)-, dimethyl ester (9CI) (CA INDEX NAME)

RN 178377-26-9 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro2-[2-[2-methoxy-5-(1-methylethyl)phenyl]ethyl]-6-[2-oxo-2-[4-(4-pyridinylmethyl)-1-piperazinyl]ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 178377-27-0 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[2-methoxy-5-(1-methylethyl)phenyl]ethyl]-6-[2-oxo-2-[4-(4-pyridinylmethyl)-1-piperazinyl]ethyl]-, dimethyl ester, dihydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{MeO} \stackrel{\text{O}}{\longleftarrow} \text{C1} \\ \text{CH}_2 \stackrel{\text{C}}{\longleftarrow} \text{C2} \\ \text{CH}_2 \stackrel{\text{C}}{\longleftarrow} \text{C2} \\ \text{CH}_2 \stackrel{\text{C}}{\longleftarrow} \text{C2} \\ \text{CH}_2 \stackrel{\text{C}}{\longleftarrow} \text{C3} \\ \text{CH}_2 \stackrel{\text{C}}{\longleftarrow} \text{C4} \\ \text{C} \stackrel{\text{C}}{\longleftarrow} \text{C2} \\ \text{C} \stackrel{\text{C}}{\longleftarrow} \text{C3} \\ \text{C} \stackrel{\text{C}}{\longleftarrow} \text{C4} \\ \text{C5} \\ \text{C6} \\ \text{C7} \\ \text{C6} \\ \text{C7} \\ \text{C7} \\ \text{C8} \\ \text{C8}$$

●2 HCl

RN 178377-28-1 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dibromophenyl)-1,4-dihydro-2-[2-oxo-2-[4-[2-oxo-2-(1-pyrrolidinyl)ethyl]-1-piperazinyl]ethyl]-6-(2-phenylethyl)-, dimethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-(4-methyl-1-piperazinyl)-2-oxoethyl]-6-[2-(2-pyridinyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 178377-30-5 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-(4-methyl-1-piperazinyl)-2-oxoethyl]-6-[2-(2-thienyl)ethyl]-, dimethyl ester, monohydrochloride (9CI) (CA INDEX NAME).

RN 178377-31-6 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-(2-methoxyphenyl)ethyl]-6-[2-oxo-2-[4-(4-pyridinylmethyl)-1-piperazinyl]ethyl]-, dimethyl ester, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

RN 178377-32-7 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-(2-methoxyphenyl)ethyl]-6-[2-oxo-2-[4-[2-oxo-2-(1-pyrrolidinyl)ethyl]-1-piperazinyl]ethyl]-, dimethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

 $\langle \rangle$ 

HC1

RN 178377-33-8 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-(2-methoxyphenyl)ethyl]-6-[2-oxo-2-[4-(3-pyridinylmethyl)-1-piperazinyl]ethyl]-, dimethyl ester, dihydrochloride (9CI) (CA INDEX NAME)

●2 HC1

RN 178377-34-9 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-(2-methoxyphenyl)ethyl]-6-[2-oxo-2-[4-(2-pyridinylmethyl)-1-piperazinyl]ethyl]-, dimethyl ester, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

RN 178377-35-0 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-oxo-2-[4-[2-oxo-2-(1-pyrrolidinyl)ethyl]-1-piperazinyl]ethyl]-6-(2-phenylethyl)-, dimethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

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$$\langle \rangle$$

● HCl

RN 178377-36-1 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-(2-methoxyphenyl)ethyl]-6-[2-[4-[2-[(1-methylethyl)amino]-2-oxoethyl]-1-piperazinyl]-2-oxoethyl]-, dimethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 178377-37-2 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-(2-hydroxyethyl)-1-piperazinyl]-2-oxoethyl]-6-[2-(2-methoxyphenyl)ethyl]-, dimethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

HC1

RN 178377-38-3 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2 - [2 - (2 - methoxyphenyl) ethyl] - 6 - [2 - oxo-2 - [4 - (2 - pyrimidinyl) - 1 - (2 - oxo-2 - (4 - (2 - pyrimidinyl) - 1 - (2 - oxo-2 - (4 - (2 - pyrimidinyl) - 1 - (2 - oxo-2 - (4 - (2 - pyrimidinyl) - 1 - (2 - oxo-2 - (4 - (2 - pyrimidinyl) - 1 - (2 - oxo-2 - (4 - (2 - pyrimidinyl) - 1 - (2 - oxo-2 - (4 - (2 - pyrimidinyl) - 1 - (2 - oxo-2 - (4 - (2 - pyrimidinyl) - 1 - (2 - oxo-2 - (4 - (2 - pyrimidinyl) - 1 - (2 - oxo-2 - (4 - (2 - pyrimidinyl) - 1 - (2 - oxo-2 - (4 - (2 - pyrimidinyl) - 1 - (2 - oxo-2 - (4 - (2 - pyrimidinyl) - 1 - (2 - oxo-2 - (4 - (2 - pyrimidinyl) - (2 - oxo-2 - (4 - (2 - pyrimidinyl) - (2 - oxo-2 - (4 - (2 - pyrimidinyl) - (2 - oxo-2 - (4 - (2 - pyrimidinyl) - (2 - oxo-2 - (4 - oxpiperazinyl]ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 178377-39-4 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-(2-methoxyphenyl)ethyl]-6-[2-[4-(1-methyl-4-piperidinyl)-1piperazinyl]-2-oxoethyl]-, dimethyl ester, dihydrochloride (9CI) (CA INDEX NAME)

2 HC1

3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-CN2-[2-(2-methoxyphenyl)ethyl]-6-[2-[4-(8-methyl-8azabicyclo[3.2.1]oct-3-yl)-1-piperazinyl]-2-oxoethyl]-, dimethyl ester, dihydrochloride (9CI) (CA INDEX NAME)

2 HCl

RN

178377-41-8 HCAPLUS 3,5-Pyridinedicarboxylic acid, 2-[2-[4-(1-azabicyclo[2.2.2]oct-3-CNyl)-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-methoxyphenyl)ethyl]-, dimethyl ester, dihydrochloride (9CI) (CA INDEX NAME)

2 HC1

178377-42-9 HCAPLUS RN

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-(2-methoxyphenyl)]-6-[2-oxo-2-[4-[8-(phenylmethyl)]-8azabicyclo[3.2.1]oct-3-yl]-1-piperazinyl]ethyl]-, dimethyl ester, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

RN 178377-43-0 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-(2-methoxyphenyl)ethyl]-6-[2-[4-(octahydro-5-oxo-2-pentalenyl)-1-piperazinyl]-2-oxoethyl]-, dimethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 178377-44-1 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-(2-methoxyphenyl)ethyl]-6-[2-[4-(octahydro-5-hydroxy-2-pentalenyl)-1-piperazinyl]-2-oxoethyl]-, dimethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

HO N MeO CH<sub>2</sub> C1 C1 
$$CH_2$$
  $CCH_2$   $CCH_2$ 

● HCl

RN 178377-45-2 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-(5-aminooctahydro-2-pentalenyl)-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-methoxyphenyl)ethyl]-, dimethyl ester, dihydrochloride (9CI) (CA INDEX NAME)

●2 HC1

RN 178377-46-3 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-(4-methyl-1-piperazinyl)-2-oxoethyl]-6-(phenylacetyl)-, dimethyl ester (9CI) (CA INDEX NAME)

RN 178377-47-4 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-(4-methyl-1-piperazinyl)-2-oxoethyl]-6-(phenylacetyl)-, dimethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 178377-48-5 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[3-(dimethylamino)propyl]-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-methoxyphenyl)ethyl]-, dimethyl ester, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

RN 178377-82-7 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-(4-methyl-1-piperazinyl)-2-oxoethyl]-6-[2-(2-thienyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 178377-83-8 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-(2-methoxyphenyl)ethyl]-6-[2-oxo-2-[4-(4-pyridinylmethyl)-1-piperazinyl]ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 178377-84-9 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-(2-methoxyphenyl)ethyl]-6-[2-oxo-2-[4-[2-oxo-2-(1-pyrrolidinyl)ethyl]-1-piperazinyl]ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

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RN 178377-85-0 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-(2-methoxyphenyl)ethyl]-6-[2-oxo-2-[4-(3-pyridinylmethyl)-1-piperazinyl]ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 178377-86-1 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-(2-methoxyphenyl)ethyl]-6-[2-oxo-2-[4-(2-pyridinylmethyl)-1-piperazinyl]ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 178377-87-2 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-oxo-2-[4-[2-oxo-2-(1-pyrrolidinyl)ethyl]-1-piperazinyl]ethyl]-6-(2-phenylethyl)-, dimethyl ester (9CI) (CA INDEX NAME)

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PAGE 2-A

$$\stackrel{h}{\bigcirc}$$

RN 178377-88-3 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-(2-methoxyphenyl)ethyl]-6-[2-[4-[2-[(1-methylethyl)amino]-2-oxoethyl]-1-piperazinyl]-2-oxoethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 178377-89-4 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-[4-(2-hydroxyethyl)-1-piperazinyl]-2-oxoethyl]-6-[2-(2-methoxyphenyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 178377-90-7 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-(2-methoxyphenyl)ethyl]-6-[2-[4-(1-methyl-4-piperidinyl)-1-piperazinyl]-2-oxoethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 178377-91-8 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-(2-methoxyphenyl)ethyl]-6-[2-[4-(8-methyl-8-azabicyclo[3.2.1]oct-3-yl)-1-piperazinyl]-2-oxoethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & \\ & & \\ &$$

RN 178377-92-9 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-(1-azabicyclo[2.2.2]oct-3-y1)-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-methoxyphenyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 178377-93-0 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-(2-methoxyphenyl)ethyl]-6-[2-oxo-2-[4-[8-(phenylmethyl)-8-azabicyclo[3.2.1]oct-3-yl]-1-piperazinyl]ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & \\ & & \\ &$$

RN 178377-94-1 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-(2-methoxyphenyl)ethyl]-6-[2-[4-(octahydro-5-oxo-2-pentalenyl)-1-piperazinyl]-2-oxoethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 178377-95-2 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-1,4-dihydro-2-[2-(2-methoxyphenyl)ethyl]-6-[2-[4-(octahydro-5-hydroxy-2-pentalenyl)-1-piperazinyl]-2-oxoethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 178377-96-3 HCAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[4-(5-aminooctahydro-2-pentalenyl)-1-piperazinyl]-2-oxoethyl]-4-(2,6-dichlorophenyl)-1,4-dihydro-6-[2-(2-methoxyphenyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

RN 178377-97-4 HCAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(2,6-dichlorophenyl)-2-[2-[4-[3-(dimethylamino)propyl]-1-piperazinyl]-2-oxoethyl]-1,4-dihydro-6-[2-(2-methoxyphenyl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)

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IC
     ICM
         C07D211-90
          C07D401-12; C07D451-04; C07D401-06; C07D409-06; C07D453-02;
          A61K031-445
CC
     28-17 (Heterocyclic Compounds (More Than One Hetero Atom))
     Section cross-reference(s): 1
IT
     178376-77-7P
                                   178376-79-9P
                    178376-78-8P
                                                   178376-80-2P
     178376-81-3P
                    178376-82-4P
                                    178376-83-5P
                                                   178376-84-6P
     178376-85-7P
                    178376-86-8P
                                    178376-87-9P
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     178376-90-4P
                    178376-91-5P
                                    178376-92-6P
                                                   178376-93-7P
     178376-96-0P
                    178376-97-1P 178376-98-2P
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     178377-08-7P
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                                    178377-16-7P
                                                   178377-17-8P
     178377-18-9P
                    178377-19-0P
                                   178377-20-3P
                                                   178377-21-4P
     178377-22-5P
                    178377-23-6P
                                    178377-24-7P
                                                   178377-25-8P
     178377-26-9P 178377-27-0P 178377-28-1P
     178377-29-2P 178377-30-5P 178377-31-6P
     178377-32-7P 178377-33-8P 178377-34-9P
     178377-35-0P 178377-36-1P 178377-37-2P
     178377-38-3P 178377-39-4P 178377-40-7P
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     178377-78-1P
                    178377-79-2P
                                   178377-80-5P
                                                   178377-81-6P
     178377-82-7P 178377-83-8P 178377-84-9P
     178377-85-0P 178377-86-1P 178377-87-2P
     178377-88-3P 178377-89-4P 178377-90-7P
     178377-91-8P 178377-92-9P 178377-93-0P
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178377-94-1P 178377-95-2P 178377-96-3P

178377-97-4P 178457-10-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation);

THU (Therapeutic use); BIOL (Biological study); PREP

(Preparation); USES (Uses)

(preparation of 2-(piperazinocarbonylmethyl)-1,4-

dihydropyridinedicarboxylates as bradykinin antagonists)

L53 ANSWER 8 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1994:483690 HCAPLUS Full-text

DOCUMENT NUMBER:

121:83690

TITLE:

Syntheses of lobeline analogs with biological

activity

AUTHOR (S):

Yan, Rian; Zhang, Mingzhe; Shu, Ye

CORPORATE SOURCE:

Dep. Chem., Peking Univ., Beijing, Peop. Rep.

China

SOURCE:

Beijing Daxue Xuebao, Ziran Kexueban (

**1993**), 29(4), 434-9

CODEN: PCTHAP; ISSN: 0479-8023

DOCUMENT TYPE:

Journal

LANGUAGE:

Chinese

AB Lobelanine, norlobelanine, lobelanidine (I), and norlobelanidine (II) were synthesized. Also obtained were 2,6- diacetonylpiperidine and 2-acetonyl-6-benzoylmethylpiperidine. By the biol. tests on rats, I and II showed good excited effects to the respiratory central system.

1T 495-49-8P, (±)-Norlobelanidine 552-72-7P, (±)-Lobelanidine 579-21-5P, meso-Lobelanine 6035-31-0P, (±)-Norlobelanine 6168-88-3P 115120-85-9P, (±)-Lobelanidine nitrate 156238-70-9P 156516-42-6P, (±)-

Norlobelanidine nitrate

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

RN 495-49-8 HCAPLUS

CN 2,6-Piperidinediethanol,  $\alpha$ , $\alpha$ '-diphenyl-,  $(\alpha R, \alpha' S, 2R, 6S)$ -rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 552-72-7 HCAPLUS

CN 2,6-Piperidinediethanol, 1-methyl- $\alpha$ , $\alpha$ '-diphenyl-, ( $\alpha$ R, $\alpha$ 'S,2R,6S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 579-21-5 HCAPLUS

Relative stereochemistry.

Relative stereochemistry.

Relative stereochemistry.

● HCl

RN 115120-85-9 HCAPLUS

CN 2,6-Piperidinediethanol, 1-methyl- $\alpha$ , $\alpha$ '-diphenyl-, [2 $\alpha$ (R\*),6 $\alpha$ (S\*)]-, nitrate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 7697-37-2 CMF H N O3

<u>С</u> он

CM 2

CRN 552-72-7 CMF C22 H29 N O2 Relative stereochemistry.

RN 156238-70-9 HCAPLUS
CN 2-Propanone, 1-[1-methyl-6-(2-oxo-2-phenylethyl)-2-piperidinyl]-,
cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 156516-42-6 HCAPLUS CN 2,6-Piperidinediethanol,  $\alpha,\alpha'$ -diphenyl-, [ $2\alpha(R^*)$ , $6\alpha(S^*)$ ]-, nitrate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 7697-37-2 CMF H N O3

CM 2

CRN 495-49-8 CMF C21 H27 N O2

Relative stereochemistry.

CC 31-3 (Alkaloids)

Section cross-reference(s): 1

ST lobeline alkaloid prepn central nervous.

system

IT 495-49-8P, (±)-Norlobelanidine 552-72-7P,
 (±)-Lobelanidine 579-21-5P, meso-Lobelanine
6035-31-0P, (±)-Norlobelanine 6168-88-3P
66120-45-4P 66120-46-5P 108950-19-2P 115120-85-9P,

(±)-Lobelanidine nitrate **156238-70-9P** 156238-74-3P

156516-42-6P, (±)-Norlobelanidine nitrate

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

L53 ANSWER 9 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 1987:208927 HCAPLUS Full-text

DOCUMENT NUMBER: 106:208927

TITLE: Pupariation in flies: a tool for monitoring

effects of drugs, venoms, and other neurotoxic

compounds

AUTHOR(S): Zdarek, Jan; Fraenkel, Gottfried

CORPORATE SOURCE: Inst. Entomol., Czech. Acad. Sci., Prague,

Czech.

SOURCE: Archives of Insect Biochemistry and Physiology

(**1987**), 4(1), 29-46

CODEN: AIBPEA; ISSN: 0739-4462

DOCUMENT TYPE: Journal LANGUAGE: English

A complex Sarcophaga bullata pupariation assay was used to evaluate the neurotropic effects of several drugs, venoms, and insecticides. The assay consists of tests for (1) immediate effects on the intact larva, (2) effects on ligated (i.e., isolated from the central nervous system) larval abdomens, (3) morphogenetic effects on the puparium, and (4) effects on stereotyped pupariation behavior. The latter are monitored barog. by recording changes in hemocoelic pressure. Of 62 compds. screened, 18 showed morphogenetic activity at a threshold dose of ≤5 µg, 11 at 50 µg, 4 at 100 µg, and 29 showed no morphogenetic activity. From a comparison of the putative pharmacol. actions of the tested compds. with their morphogenetic effects, certain generalizations can be made. Agents that paralyze neuromuscular systems at the peripheral level (i.e., tetrodotoxin [4368-28-9]) or suppress or modify basic motor patterns centrally (i.e., veratrine sulfate [39412-62-9]) cause retention of larval morphol. characters in the puparium. Compds. that stimulate convulsive contractions of segmental musculature (mostly cholinergic drugs like eserine sulfate [64-47-1], nicotine [54-11-5], and organophosphate insecticides) cause retention of larval segmentation on longitudinally contracted puparia. Five compds. (venom of the scorpion, Leirus quinquestriatus, pyrethrins, protoveratrine A [143-57-7], kainic acid [487-79-6], and quisqualic acid [52809-07-1]) stimulate musculature of the denervated abdomen. Barog. monitoring of changes in pupariation behavior appears to be a most sensitive and informative test. It reveals great differences in the ways in which compds. producing seemingly identical morphogenetic effects affect and modify behavior, thus making pharmacol. classification more accurate.

IT 90-69-7, Lobeline

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)

(toxicity of, to fly, pupariation as monitor for)

RN 90-69-7 HCAPLUS

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

CC 4-3 (Toxicology)
Section cross-reference(s): 1

```
IT
    50-55-5, Reserpine
                          50-67-9, Serotonin, biological studies
     51-12-7, Nialamide
                         51-41-2, Norepinephrine 51-43-4
     Tyramine
                51-83-2
                          54-11-5, Nicotine 54-92-2, Iproniazid
     55-48-1, Atropine sulphate
                                 55-92-5, Acetyl-\beta-methylcholine
     56-12-2, GABA, biological studies 56-69-9, 5-Hydroxy-DL-
     tryptophan 56-86-0, L-Glutamic acid, biological studies
     57-24-9, Strychnine 57-94-3, Tubocurarine chloride 58-08-2,
     Caffeine, biological studies 59-46-1, Procaine 60-13-9,
     Amphetamine sulphate
                           60-92-4, CAMP 62-31-7, Dopamine
     hydrochloride
                    64-47-1, Eserine sulphate
                                                64-86-8, Colchicine
     67-52-7, Barbituric acid 71-91-0, Tetraethylammonium bromide
     73-05-2
               76-74-4, Pentobarbital 90-69-7, Lobeline
     90-81-3, DL-Ephedrine 92-13-7, Pilocarpine
                                                    101-31-5
     107-49-3, TEPP
                     114-49-8, Scopolamine hydrobromide
                                                          116-06-3,
                121-75-5, Malathion 124-87-8, Picrotoxin 128-53-0,
     Aldicarb
     N-Ethylmaleimide 130-95-0, Quinine 143-57-7, Protoveratrine A 306-40-1, Succinylcholine 333-41-5, Diazinon 362-74-3,
                     481-39-0, Juglone 487-79-6, Kainic acid
     Dibutyryl cAMP
     497-30-3, L-Ergothioneine 525-66-6 1199-18-4,
     6-Hydroxydopamine 1563-66-2, Carbofuran
                                                 4368-28-9
     Dihydroergotamine tartrate
                                 7683-59-2, DL-Isoproterenol
     7786-30-3, Magnesium chloride, biological studies
                                                         8006-25-5,
     Ergotoxine 10043-52-4, Calcium chloride, biological studies
     15662-33-6, Ryanodine
                           37231-28-0 39412-62-9 52809-07-1,
     Quisqualic acid
     RL: ADV (Adverse effect, including toxicity); BIOL (Biological
     study)
        (toxicity of, to fly, pupariation as monitor for)
L53 ANSWER 10 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                         1982:449706 HCAPLUS Full-text
DOCUMENT NUMBER:
                         97:49706
TITLE:
                         Comparison of the degree of discriminability
                         of various drugs using the T-maze drug
                         discrimination paradigm
AUTHOR(S):
                         Overton, Donald A.
CORPORATE SOURCE:
                         Sch. Med., Temple Univ., Philadelphia, PA,
                         19140, USA
SOURCE:
                         Psychopharmacology (Berlin, Germany) (
                         1982), 76(4), 385-95
CODEN: PSCHDL; ISSN: 0033-3158
DOCUMENT TYPE:
                         Journal
LANGUAGE:
                         English
     A report of preclin. data that may predict the amount of state-dependent learning
     likely to be produced in humans by various psychoactive drugs is presented. In a T-
     maze, rats were required to turn right when drugged and left when not drugged to escape
     from elec. shock. The number of training sessions required to learn this drug vs. no
     drug discrimination was used as an indicator of the degree of discriminability of the
     training drug. Using this procedure, the discriminability of more than 100 common
     psychoactive drugs was determined at one or more doses. Sessions to criterion usually
     decreased as dosage was increased. maximum discriminability occurred at the highest
     usable dose in most cases, and differed considerably for drugs of various types. The
     results suggest that the majority of psychoactive drugs can be investigated by use of
     the drug discrimination technique, and that state-dependent learning effects will not
     accompany clin. use of most psychoactive drugs unless intoxicating doses are used.
ΙT
     90-69-7
    RL: BIOL (Biological study)
        (discrimination behavior from)
     90-69-7 HCAPLUS
RN
CN
     Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-
```

Absolute stereochemistry.

piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

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Ph S OH
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SOURCE:

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CC
     1-11 (Pharmacology)
IT
     Analgesics
     Anesthetics
     Anticonvulsants and Antiepileptics
     Antidepressants
     Antihistaminics
     Antitussives
       Central nervous system depressants
       Central nervous system stimulants
    Muscle relaxants and Spasmolytics
     Narcotics
     Neurotransmitter antagonists
     Psychotomimetics
     Sympatholytics
     Sympathomimetics
     Opiates and Opioids
     RL: BIOL (Biological study)
        (discrimination behavior from)
ΙT
     50-06-6, biological studies
                                    50-12-4
                                              50-36-2
                                                        50-48-6
     50-49-7
             50-52-2
                         50-53-3, biological studies
                                                        50-55-5
               50-78-2
                         51-12-7
                                    51-34-3
                                              51-40-1
     50-60-2
                                                        51-55-8,
     biological studies
                         51-61-6, biological studies
                                                         51-64-9
     51-71-8
               51-74-1
                         51-79-6
                                    51-83-2
                                              52-86-8
                                                        52-88-0
     54-04-6
               54-11-5
                         54-36-4
                                    54-92-2
                                              54-95-5
                                                        56-34-8
     57-27-2, biological studies
                                    57-41-0
                                              57-42-1
                                                        57-44-3
     57-47-6
               57-53-4
                         58-08-2, biological studies
                                                        58-25-3
               59-26-7
                         59-33-6
                                   59-46-1
                                              59-96-1
     58-73-1
                                                        59-98-3
     60-29-7, biological studies
                                    60-40-2
                                              60-41-3
                                                        60-80-0
                                              64-20-0
     63-75-2
               64-17-5, biological studies
                                                        64-65-3
                                              67-66-3, biological
     65-29-2
               67-64-1, biological studies
     studies
               69-23-8
                         69-72-7, biological studies
                                                        71-82-9
               76-57-3
                         76-74-4
                                    76-99-3
     72-44-6
                                              77-10-1
                                                        77-20-3
                                    86-13-5
                                              86-34-0 90-69-7
     77-21-4
               77-67-8
                         78-44-4
     92-13-7
               103-90-2
                          110-89-4, biological studies
                                                          113-45-1
     121-75-5
                124-87-8
                           125-64-4
                                       125-71-3
                                                  125-72-4
                                                              127-48-0
                           132-17-2
                                       137-58-6
                                                  141-78-6, biological
     129-03-3
                129-49-7
     studies
               144-11-6
                          155-09-9
                                      155-41-9
                                                 302-40-9
                                                             359-83-1
     428-37-5
                439-14-5
                           465-65-6
                                       469-62-5
                                                  492-41-1
                                                              523-87-5
                532-03-6
                           546-48-5
                                       561-27-3
                                                  604-75-1
                                                              919-16-4
     525-66-6
     971-74-4
                990-73-8
                           1002-16-0
                                        1668-19-5
                                                    3572-80-3
                             5786-21-0
                                          6700-56-7
                                                      6740-88-1
     4502-13-0
                 5714-77-2
     7439-93-2, biological studies
                                      7491-74-9
                                                  7647-01-0, biological
                                                7683-59-2
     studies
               7647-14-5, biological studies
                                                             8015-54-1
     9002-60-2, biological studies
                                      12794-10-4D, derivs.
                                                              14838-15-4
     16590-41-3
                  17617-23-1
     RL: BIOL (Biological study)
        (discrimination behavior from)
L53 ANSWER 11 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                         1980:461874 HCAPLUS Full-text
DOCUMENT NUMBER:
                         93:61874
TITLE:
                         Agonist-induced affinity alterations of a
                         central nervous
                         system α-bungarotoxin receptor
AUTHOR(S):
                         Lukas, Ronald J.; Bennett, Edward L.
CORPORATE SOURCE:
                         Lawrence Berkeley Lab., Univ. California,
                         Berkeley, CA, 94720, USA
```

Journal of Neurochemistry (1979),

33(6), 1151-7

CODEN: JONRA9; ISSN: 0022-3042

DOCUMENT TYPE: LANGUAGE:

Journal English

AB Pretreatment of α-bungarotoxin (I) [11032-79-4] receptors from rat brain membrane with cholinergic agonist, but not antagonist, caused transformation of sites to a high-affinity form toward agonist. This change in receptor state occurred with a half-time of the order of minutes, and was fully reversible on dilution of agonists, suggesting that I-binding sites are true central nicotinic acetylcholine [51-84-3] receptors. Agonist-induced alteration of receptor state may represent an in vitro correlate of physiol. desensitization. The effects of agonist on I binding isotherms and on the rate of I binding to specific sites suggested that inhibition of I binding to the high-affinity state is noncompetitive. Thus, there may be discrete I-binding and agonist-binding sites on central toxin receptors.

IT 90-69-7

RL: BIOL (Biological study)

(bungarotoxin binding by brain inhibition by)

RN 90-69-7 HCAPLUS

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

CC 2-1 (Hormone **Pharmacology**)

Section cross-reference(s): 1

ST brain bungarotoxin receptor characterization; central nervous system bungarotoxin receptor; acetylcholine receptor brain bungarotoxin

IT Receptors

RL: BIOL (Biological study)

(for bungarotoxin, of central nervous

system, nicotinic acetylcholine receptors in relation
to)

IT 51-83-2 54-11-5 57-94-3 60-26-4 90-69-7 153-76-4

156-74-1 3426-74-2 4468-05-7 4555-00-4

RL: BIOL (Biological study)

(bungarotoxin binding by brain inhibition by)

IT 51-84-3, biological studies

RL: BIOL (Biological study)

(receptors for, bungarotoxin receptors of central

nervous system in relation to)

IT 11032-79-4

RL: BIOL (Biological study)

(receptors for, of central nervous

system, nicotinic acetylcholine receptors in relation
to)

L53 ANSWER 12 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1979:400482 HCAPLUS Full-text

DOCUMENT NUMBER:

91:482

TITLE:

Effects of thio-group modification and calcium(2+) ion on agonist-specific state

transitions of a central nicotinic

acetylcholine receptor

AUTHOR(S):

Lukas, Ronald J.; Morimoto, Hiromi; Bennett,

Edward L.

CORPORATE SOURCE:

Lab. Chem. Biodyn., Univ. California,

Berkeley, CA, 94720, USA

SOURCE:

Biochemistry (1979), 18(11), 2384-95

CODEN: BICHAW; ISSN: 0006-2960

DOCUMENT TYPE: LANGUAGE:

Journal English

Agonist-binding affinities of central nervous system nicotinic acetylcholine [51-84-3] receptors (nAcChR) from rat brain membranes were sensitive to the duration of exposure to agonist. These agonist-induced changes in receptor state were mimicked by appropriate modification of receptor thio-groups (organic disulfide and sulfhydryl residues) and(or) by manipulation of solvent ionic composition In the absence of Ca2+, the concentration of acetylcholine necessary to prevent half of specific lphabungarotoxin-3H binding was .apprx.1 mM for nAcChR treated with dithiothreitol (DTT) or ` DTT-N-ethylmaleimide (low-affinity states) and .apprx.40 µM for nAcChR treated with DTT-dithiobis(2-nitrobenzoic acid) or for native ncAChR pretreated with acetylcholine (high-affinity states). Addition of Ca2+ increased the effectiveness of acetylcholine toward blocking toxin binding. None of these treatments altered toxin or antagonist binding, nor were there observed differences in Hill nos. for agonist binding.

Agonists competitively inhibited toxin binding to low-affinity states, but noncompetitive inhibition was observed for binding to high-affinity states. Values of

acetylcholine dissociation consts. estimated from these data fell within the range of values determined physiol. with nAcChR from other systems. The redox state of brain nAcChR thio-groups and Ca2+ may mediate physiol. important changes in the receptor

state during activation and desensitization.

TΤ 134-63-4

RL: BIOL (Biological study)

(brain binding of, calcium and sulfur-containing group in relation

RN 134-63-4 HCAPLUS

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2piperidinyl]-1-phenyl-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

HC1

CC 2-1 (Hormone Pharmacology)

Section cross-reference(s): 1

51-83-2 51-84-3, biological studies 56-34-8 57-94-3

60-25-3 65-29-2 98-04**-4 134-63-4** 541-22-0

1866-16-6 2820-51-1 4468-05-7

RL: BIOL (Biological study)

(brain binding of, calcium and sulfur-containing group in relation to)

L53 ANSWER 13 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1977:78724 HCAPLUS Full-text

DOCUMENT NUMBER:

86:78724

TITLE: AUTHOR(S): Paper-electrophoretic study of analeptic drugs

Pesakhovich, Ya. L.

CORPORATE SOURCE:

Tyumen. Med. Inst., Tyumen, USSR Farmatsevtichnii Zhurnal (Kiev) (1976

SOURCE: ), (6), 58-60

CODEN: FRZKAP; ISSN: 0367-3057

DOCUMENT TYPE:

Journal

LANGUAGE:

Ukrainian

Paper electrophoresis during 1 h at 400 V and pH 1.8, 2.3, and 3-10 enabled differentiation of nicotinic acid diethylamide [59-26-7], Corazole [54-95-5], cytisine

[485-35-8], lobeline-HCl [ 134-63-4], and strychnine nitrate [66-32-0] concomitantly present on 1 paper.

IT 134-63-4

> RL: ANT (Analyte); ANST (Analytical study) (detection of, by paper electrophoresis)

RN 134-63-4 HCAPLUS

Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-CN piperidinyl]-1-phenyl-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

HC1

CC 64-3 (Pharmaceutical Analysis)

IT Central nervous system stimulants

(detection of, by paper electrophoresis)

IT 59-26-7 66-32-0 **134-63-4** 

RL: ANT (Analyte); ANST (Analytical study) (detection of, by paper electrophoresis)

L53 ANSWER 14 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN 1973:79794 HCAPLUS Full-text ACCESSION NUMBER:

DOCUMENT NUMBER:

78:79794

TITLE: Nicotine as a discriminative cue in rats.

Inability of related drugs to produce a

nicotine-like cuing effect

AUTHOR(S): Schechter, Martin D.; Rosecrans, John A.

CORPORATE SOURCE: Dep. Pharmacol., Med. Coll. Virginia,

Richmond, VA, USA

SOURCE: Psychopharmacologia (1972), 27(4),

379-87

CODEN: PSYPAG; ISSN: 0033-3158

DOCUMENT TYPE:

LANGUAGE:

Journal English

AB . Rats were trained to enter one arm of a T-maze after s.c. injection of nicotine (I) [54-11-5](0.4mg/kg) and to enter the opposite arm following injection of an equal volume of saline. Nicotine isomethonium iodide-HI (0.4 mg/kg) [38885-20-0], lobeline sulfate [134-64-5](0.4-10.0mg/kg), d-amphetamine sulfate [51-63-8](2.0-4.0mg/kg), and arecoline-HBr [300-08-3](0.25- 2.0mg/kg) produced responses which resembled the established saline effect. Pretreatment with 10.0 mg lobeline/kg did not affect the Icued response. The cues to which rats respond may be mediated by a central effect of I, while the other drugs may have different effects on the central nervous system.

IT 134-64-5

RL: BIOL (Biological study)

(behavior in response to, nicotine conditioned response in relation to)

134-64-5 HCAPLUS RN

Ethanone, 2-[(2R)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-CN piperidinyl]-1-phenyl-, sulfate (2:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 7664-93-9 CMF H2 O4 S

CM

CRN 90-69-7 CMF C22 H27 N O2

Absolute stereochemistry.

CC 1-5 (Pharmacodynamics)

38885-20-0 IT 51-63-8 **134-64-5** 300-08-3

RL: BIOL (Biological study)

(behavior in response to, nicotine conditioned response in relation to)

L53 ANSWER 15 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 1968:94448 HCAPLUS Full-text

DOCUMENT NUMBER:

68:94448

TITLE:

SOURCE:

Effects of pharmacological agents on the

physiological responses of hair disks

AUTHOR(S):

Smith, Kenneth Rupert, Jr.; Creech, Brevator

CORPORATE SOURCE:

Univ. Oxford, Oxford, UK Experimental Neurology (1967),

19(4), 477-82

CODEN: EXNEAC; ISSN: 0014-4886

DOCUMENT TYPE:

Journal

LANGUAGE: English

Hair disks are specialized pads of epidermis from the dorsal lumbar region of hooded or Sprague-Dawley rats with slowly adapting, highly sensitive touch receptors. Granules in the cytoplasm of the cells are believed to serve as neurotransmitters to initiate generator potentials in the neural membrane. Action potentials elicited from these hair disks by standard mech. stimuli were recorded before and after topical applications of drugs implicated in neurotransmission in the central and peripheral nervous system. Of the 51 substances tried, only nicotine, lobeline, veratrum alkaloids, K+, Ca2+, and Mg2+ blocked the responses of the mechanoreceptor. Nicotine caused stimulation initially. Acetylcholine, serotonin, catechol amines and related drugs had no effect.

90-69-7

RL: BIOL (Biological study)

(epidermal mechanoreceptor response to)

RN 90-69-7 HCAPLUS

Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-phenylethyl]CN piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

CC 15 (Pharmacodynamics)

TT 54-11-5, biological studies **90-69-7** 7439-95-4,

biological studies 7440-09-7, biological studies 7440-70-2,

biological studies

RL: BIOL (Biological study)

(epidermal mechanoreceptor response to)

L53 ANSWER 16 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 1965:94011 HCAPLUS Full-text

DOCUMENT NUMBER: 62:94011
ORIGINAL REFERENCE NO.: 62:16861e-f

TITLE: Effect of drugs affecting the central

**nervous system** on the total

concentration of catechol amine in the blood

AUTHOR(S): Unghvary, L.; Hovanyi, M.; Farkas, F.

SOURCE: Pharmazeutische Zentralhalle fuer Deutschland

(**1965**), 104(1), 27-9

CODEN: PHZEAD; ISSN: 0369-9773

DOCUMENT TYPE: Journal LANGUAGE: German

AB Barbiturates, salicylates, antihistamines, strychnine, amphetamine, scopolamine, pethidine, caffeine, and meprobamate did not show any influence on the catechol amine contents of the blood. However, phenothiazine derivs., acetylcholine, atropine, and Rauwolfia prepns. lower the catechol amine level in blood by about 50%, while lobeline-HCl, camphor, pentetrazol, morphine, and EtOH raise it by about 50%. The maximum changes occur after 15-30 min. and return to normal after 60 min.

IT 134-63-4, Lobeline, hydrochloride

(effect on pyrocatechol amines in blood)

RN 134-63-4 HCAPLUS

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

● HCl

CC 68 (Pharmacodynamics)

IT 51-84-3, Choline, acetyl- 134-63-4, Lobeline,
 hydrochloride

(effect on pyrocatechol amines in blood)

L53 ANSWER 17 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 1963:5140 HCAPLUS Full-text

DOCUMENT NUMBER: 58:5140
ORIGINAL REFERENCE NO.: 58:845d-f

TITLE: Dimerfline (Rec 7-0267), other central

nervous system stimulants,

and lobeline as antagonists of pentobarbital

AUTHOR(S): Setnikar, Ivo; Murmann, Walter; Magistretti,

Maria Jose

CORPORATE SOURCE:

Recordati S.P.A., Milan

SOURCE:

Archives Internationales de Pharmacodynamie et

de Therapie (1962), 138, 364-88 CODEN: AIPTAK; ISSN: 0003-9780

DOCUMENT TYPE: Journal LANGUAGE: English

Various amts. of pentobarbital Na (I) were injected intraperitoneally into mice. Different amts. of stimulants for the central nervous system were injected subcutaneously. Compds. which counteracted the lethal effects of I were Rec 7-0267 (2phenyl-3-methyl-7-methoxy-8- dimethylaminomethylchromone-HCl) (II), Rec 7-0105 (2,3dimethyl-7-methoxy-8-morpholinomethyl-chromone-HCl), bemegride, pentetrazole, and picrotoxin. Mechanisms of the antagonisms appeared to be functional rather than a competition for receptors. II was the most active. Some compds. did not antagonize the lethal action of I, although I antagonized the lethal effects of the compds. in question. These compds. included vanillic acid diethylamide, 3-ethoxy-4-hydroxybenzoic acid, 5,7-diphenyl-1,3-diazadamantan-6-ol, and d-amphetamine (III). No necessary correlations were found between action against the lethal effects of I and an antihypnotic activity against I. The toxicity of nikethamide and prethcamide was increased by I and these 2 compds. also increased the toxicity of I. The results suggest that in human pharmacotherapy against the action of I and similar barbiturates in toxic doses, brain-stem stimulating compds. would be of value for saving life, but not for awakening the individuals. For the latter purpose, III should be much more effective. 19 references.

IT 90-69-7, Lobeline

(pentobarbital toxicity antagonism by)

RN 90-69-7 HCAPLUS

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

CC 68 (Pharmacodynamics)

L53 ANSWER 18 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 1959:73869 HCAPLUS Full-text

DOCUMENT NUMBER: 53:73869
ORIGINAL REFERENCE NO.: 53:13394g-h

TITLE: The action of lobeline and cytotone on the

cardiovascular system and respiration

AUTHOR(S): Maisaya, V. R.

CORPORATE SOURCE: State Med. Inst., Tiflis

SOURCE: Soobshcheniya Akademii Nauk Gruzinskoi SSR (

**1958**), 21, 365-8

CODEN: SAKNAH; ISSN: 0002-3167

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB In expts. on frogs (Rana ridibunda) and cats, cytotone (I) and lobeline (II) induce excited breathing and increase in blood pressure not only by stimulation of the carotid sinus, but also by perfusion at the rear extremity, although the latter effect is not quite as strong. Solns. of low concentration were effective (1:80,000-1:10,000 of II, and 1:1,000,000-1:100,000 of I). However, subcutaneous and intramuscular introduction

at even 5-10 times these concns. produced no effect. These drugs are therefore believed to act either directly through the vascular **system**, or through the **central nervous system**.

IT 90-69-7, Lobeline

(effect on blood pressure and respiration)

RN 90-69-7 HCAPLUS

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

CC 11H (Biological Chemistry: Pharmacology)

IT 90-69-7, Lobeline

(effect on blood pressure and respiration)

L53 ANSWER 19 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 1958:89282 HCAPLUS Full-text

DOCUMENT NUMBER: 52:89282 ORIGINAL REFERENCE NO.: 52:15739g-h

TITLE: The site of action of trans- $\pi$ -oxocamphor,

aminocordine, and lobeline by means of

circulatory perfusion of head of living dog

AUTHOR(S): Ogawa, Kiichi
CORPORATE SOURCE: Univ. Tokyo

SOURCE: Nippon Yakurigaku Zasshi (1957),

53(Breviaria 25(in English)), 495-507

CODEN: NYKZAU; ISSN: 0015-5691

DOCUMENT TYPE: Journal LANGUAGE: Unavailable

Respiratory stimulant effect of these 3 compds. was studied and their sites of action were analyzed by means of crossed head perfusion method in the living dog. The effect of lobeline was shown to be purely reflex in origin, that of trans- $\pi$ -oxocamphor and aminocordine chiefly central. Reflex respiratory stimulation by trans- $\pi$ -oxocamphor and aminocordine when given in the trunk circulation in very large doses was abolished by bilateral vagotomy.

IT 90-69-7, Lobeline

(respiration stimulation by)

RN 90-69-7 HCAPLUS

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

CC 11H (Biological Chemistry: Pharmacology)

IT 59-47-2, 1,2-Propanediol, 3-o-tolyloxy-

(nervous system (central) and)

IT 90-69-7, Lobeline

(respiration stimulation by)

L53 ANSWER 20 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 1958:2911 HCAPLUS Full-text

DOCUMENT NUMBER: 52:2911 ORIGINAL REFERENCE NO.: 52:584g-h

Effects of some drugs on resistance to anemia TITLE:

instigation in the central nervous system of frogs

Odintsova, N. V. AUTHOR(S):

S. M. Kirov Med. Inst., Gorki CORPORATE SOURCE:

Farmakologiya i Toksikologiya (Moscow) ( SOURCE:

1957), 20 (No. 4), 54-7

CODEN: FATOAO; ISSN: 0014-8318

DOCUMENT TYPE: Journal LANGUAGE: Unavailable

Analeptics which favor hematogenesis raise the resistance of the frog central nervous AB system to anemia-producing conditions. In descending order of efficacy, the tested drugs were: adrenaline, atropine, strychnine, lobeline, and caffeine.

90-69-7, Lobeline

(effect on central nervous system

in anemia resistance)

90-69-7 HCAPLUS RN

Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

CC 11H (Biological Chemistry: Pharmacology)

IT Anemia

(resistance to, drug effect on central

nervous system in)

IT 90-69-7, Lobeline

(effect on central nervous system

in anemia resistance)

L53 ANSWER 21 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 1956:45868 HCAPLUS Full-text

DOCUMENT NUMBER: 50:45868 ORIGINAL REFERENCE NO.: 50:8888a-e

TITLE: Pharmacology of amino ketones with nicotinic

and anti-nicotinic effects. II

AUTHOR (S): Porszasz, J.; Nador, K.; Gibiszer-Porszasz,

K.; Wieszt, T.; Padany, R.

Med. Univ., Budapest CORPORATE SOURCE:

SOURCE: Acta Physiologica Academiae Scientiarum

Hungaricae (1955), 7, 139-61 CODEN: APACAB; ISSN: 0001-6756

DOCUMENT TYPE: Journal LANGUAGE: German

cf. C.A. 49, 3394i. A survey was made of the nicotinic or antinicotinic effects on blood pressure, on respiration, on the heart, and on the central nervous system, of the following compds: 1-piperidino-2-propanone, 4-(1-pyrrolidiny1)-2-butanone 4-piperidino-2-butanone, 5-piperidino-2-pentanone, 1-piperidino-4,4-dimethyl-3-pentanone, 4piperidino-3-methyl-2-butanone, 3-(piperidinomethyl)-2-octanone, N,N-bis(2benzoylethyl)methylamine, 1,6-dipiperidino-3,4- hexanedione, trimethyl(3oxobutyl)aminonium iodide, (2-oxocyclopentylmethyl)diethylamine, 2-(1pyrrolidinylmethyl)cyclopentanone, 2-(piperidinomethyl)cyclopentan one, 2-(2methylpiperidinomethyl)cyclopentanone, 2-(4-ethylpiperidinomethyl)cyclopentanone, 2-(cis-2,6- dimethylpiperidinomethyl)cyclopentanone, (2-

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oxocyclohexylmethyl)dimethylamine, (2- oxocyclohexylmethyl)diethylamine, 2-(1-
pyrrolidinylmethyl)cyclohexanone, 2-(piperidinomethyl)cyclohexanon e, 2-(cis-2,6-
dimethylpiperidinomethyl)cyclohexanone, 4-methyl-2-(piperidinomethyl)cyclohexanone, 2-
(morpholinomethyl)cyclohexanone, 2-(piperidinomethyl)-1-indanone, 3-
(piperidinomethyl) camphor, octahydro-3-(piperidinomethyl)-2(1H)- naphthalenone, 2-
(piperidinomethyl)-1-acenaphthenone, N,N-diethylnicotinamide, lobeline, N-
benzoylethylmethylamine, 5',6',7',8'-tetrahydro-3-piperidino-2'-propionaphthone, 1-
phenyl-5-piperidino-1-penten-3-one, (2- benzoylethyl)trimethylammonium iodide, (2-
benzoylethyl)benzyldimethylammonium bromide, N-(2- benzoylethyl)pyrrolidine; 1-phenyl-
5-pyrrolidinyl-1-penten-3-one, N-(2-benzoylethyl)-2-methyl-piperidine, N-(2-
benzoylethyl)piperidine, 1-phenyl-4-piperidino-2-butanone, and parpanit.
90-69-7, Lobeline
   (pharmacol. of)
90-69-7 HCAPLUS
Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-
piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)
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Absolute stereochemistry.

ΙT

RN

CN

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CC
    11H (Biological Chemistry: Pharmacology)
ΙT
    59-26-7, Nikethamide 73-63-2, Propiophenone, 3-piperidino-
    90-69-7, Lobeline 94-39-3, Propiophenone,
    3-(1-pyrrolidinyl)-
                          534-84-9, Cyclohexanone, 2-piperidinomethyl-
    735-81-9, 2'-Propionaphthone, 5',6',7',8'-tetrahydro-3-piperidino-
    1489-51-6, Cyclopentanone, 2-piperidinomethyl- 1489-51-6,
    Piperidine, 1-(2-oxocyclopentylmethyl) - 4756-86-9, 1-Indanone,
    2-piperidinomethyl- 5724-15-2, Ammonium, (2-
    benzoylethyl)trimethyl-, iodide 6784-61-8, 2-Propanone,
    piperidino- 15409-60-6, Cyclohexanone, 2-(dimethylaminomethyl)-
    16635-03-3, 2-Butanone, 4-piperidino- 20177-03-1, 2-Pentanone,
    5-piperidino- 20177-03-1, Piperidine, 1-(4-oxopentyl)-
    24071-91-8, Cyclohexanone, 2-morpholinomethyl-
                                                     27152-62-1.
    Propiophenone, 3-methylamino-
                                   31034-98-7, Ammonium,
    trimethyl(3-oxobutyl)-, iodide
                                    33598-33-3, 2-Butanone,
    4-(1-pyrrolidinyl)-
                         37408-85-8, Cyclohexanone,
    2-(diethylaminomethyl)-
                             37747-58-3, Piperidine,
                             42327-99-1, 2-Butanone,
    1-(3-camphorylmethyl)-
    3-methyl-4-piperidino-
                             42796-37-2, 2-Pipecoline,
    1-(2-benzoylethyl) - 42796-37-2, Propiophenone,
    3-(2-methylpiperidino)-
                             82087-52-3, Pyrrolidine,
    1-(2-oxocyclohexylmethyl)-
                                 82087-52-3, Cyclohexanone,
    2-(1-pyrrolidinylmethyl)-
                                82343-79-1, Cyclopentanone,
                             90977-79-0, Cyclopentanone,
    2-(diethylaminomethyl)-
                                90977-79-0, Pyrrolidine,
    2-(1-pyrrolidinylmethyl)-
    1-(2-oxocyclopentylmethyl)-
                                  92728-81-9, 2-Butanone,
    1-phenyl-4-piperidino-
                             101104-66-9, Pyrrolidine,
    1-(2-cinnamoylethyl)-
                            101104-66-9, 1-Penten-3-one,
                                   102075-49-0, 1-Penten-3-one,
    1-phenyl-5-(1-pyrrolidinyl)-
    1-phenyl-5-piperidino-
                            102075-49-0, Piperidine,
    1-(3-oxo-5-phenyl-4-pentenyl)-
                                    103756-12-3, Propiophenone,
    3,3''-(methylimino)di-
                             145208-68-0, 3-Pentanone,
                                145208-68-0, Piperidine,
    4,4-dimethyl-1-piperidino-
    1-(4,4-dimethyl-3-oxopentyl)-
                                    854884-69-8, Cyclopentanone,
    2-[(4-ethylpiperidino)methyl]-
                                    854884-69-8, Piperidine,
     4-ethyl-1-(2-oxocyclopentylmethyl)- 854905-43-4, Cyclohexanone,
     4-methyl-2-piperidinomethyl- 855372-71-3, Piperidine,
     1-(2-acetylheptyl)-
                         855372-71-3, 2-Octanone, 3-piperidinomethyl-
    855625-61-5, Camphor, 3-piperidinomethyl- 855911-58-9,
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Piperidine, 1,1'-(3,4-dioxohexamethylene)di-855911-58-9, 3,4-Hexanedione, 1,6-dipiperidino- 855946-10-0, Ammonium, (2-benzoylethyl)benzyldimethyl-, bromide 856054-46-1, 2(1H)-Naphthalenone, octahydro-3-piperidinomethyl- 856054-46-1, Piperidine, 1-[(decahydro-3-oxo-2-naphthyl)methyl]-858264-21-8, Cyclopentanone, 2-[(2-methylpiperidino)methyl]- 858264-21-8, Piperidine, 2-methyl-1-(2-oxocyclopentylmethyl)-858828-39-4, Piperidine, 1-(2-oxo-1-indanylmethyl)- 859297-77-1, Piperidine, 1-(2-oxo-1-acenaphthenylmethyl) - 859297-77-1, 1-Acenaphthenone, 879552-14-4, Piperidine, 2-piperidinomethyl-2,6-dimethyl-1-(2-oxocyclopentylmethyl)-, cis-(pharmacol. of)

L53 ANSWER 22 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 1955:40405 HCAPLUS Full-text

DOCUMENT NUMBER: 49:40405 ORIGINAL REFERENCE NO.: 49:7732d-f

TITLE: Inhibitors of carbonic anhydrase

AUTHOR(S): Keller, Herbert

CORPORATE SOURCE: Univ. Bonn a. Rh., Germany

SOURCE: Hoppe-Seyler's Zeitschrift fuer Physiologische

Chemie (1955), 299, 85-92 CODEN: HSZPAZ; ISSN: 0018-4888

DOCUMENT TYPE: Journal LANGUAGE: Unavailable

AB Sixteen central nervous system stimulants were tested for their in vitro effect on carbonic anhydrase. 3-Ethyl-4-cyclohexyl-4H-1,2,4-triazole, metrazole, N, N-diethyl-3,5-dimethyl-4-isoxazolecarboxamide, N,N,N', N'-tetraethylphthalamide, 3-methyl-5-isopropyl-2-cyclohexanone, and nikethamide were inhibitors of this enzyme. Their effect was compared with that of sulfonamides and the theory was proposed that central nervous system

stimulants exert their effect by blocking gas exchange.

IT 90-69-7, Lobeline

(carbonic anhydrase inhibition by)

RN 90-69-7 HCAPLUS

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\stackrel{\text{Ph}}{\longrightarrow} \stackrel{\text{Me}}{\longrightarrow} \stackrel{\text{S}}{\longrightarrow} \stackrel{\text{OH}}{\longrightarrow}$$

CC 11H (Biological Chemistry: Pharmacology)

IT 54-95-5, Metrazole 57-24-9, Strychnine 59-26-7, Nikethamide
63-74-1, Sulfanilamide 72-14-0, Sulfathiazole 76-22-2, Camphor
83-81-8, Phthalamide, N,N,N',N'-tetraethyl- 90-69-7,
Lobeline 299-42-3, Ephedrine 329-56-6, Arterenol,
hydrochloride 2433-20-7, 4-Isoxazolecarboxamide,
N,N-diethyl-3,5-dimethyl- 4671-03-8, 4H-1,2,4-Triazole,
4-cyclohexyl-3-ethyl- 7632-10-2, Phenethylamine,
N,α-dimethyl- 28587-71-5, Hexetone 855419-09-9, Phenol,
p-(1-methyl-1-methylaminoethyl)-, sulfate 860756-42-9, Caffeine,
compound with Na salicylate

L53 ANSWER 23 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 1952:36806 HCAPLUS Full-text

(carbonic anhydrase inhibition by)

DOCUMENT NUMBER: 46:36806

ORIGINAL REFERENCE NO.: 46:6270h-i,6271a

TITLE: Influence of various drugs on the action of

curare on the central nervous system of the cat

AUTHOR(S): CORPORATE SOURCE: Salama, S.; Wright, Samson

SOURCE:

Middlesex Hosp. Med. School, London British Journal of Pharmacology and

Chemotherapy (1952), 7, 14-24 CODEN: BJPCAL; ISSN: 0366-0826

DOCUMENT TYPE:

Journal

LANGUAGE: Unavailable

cf. preceding abstract Acetylcholine and neostigmine which antagonize strychnine convulsions likewise antagonized curare (I) convulsions. The central inhibitory action of both drugs was partially annulled by atropine. Eserine and hexaethyl tetraphosphate (II), both convulsants, annulled I convulsions; with II the initial inhibition was followed by a secondary stimulation. Me4NI (central depressant), nicotine and lobeline (weak central depressants) annulled I convulsions, nicotine acting only if injected before I. KCl annulled I convulsions when injected intraventricularly, and produced convulsions in normal animals when injected intracisternally.

IT 90-69-7, Lobeline

> (effect on curare action on central nervous system)

90-69-7 HCAPLUS RN

Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-CN piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

CC 11H (Biological Chemistry: Pharmacology)

IT Curare

(effect on central nervous system

IT 51-84-3, Choline, acetyl- 54-11-5, Nicotine 57-47-6. Physostigmine 75-58-1, Ammonium, tetramethyl-, iodide 90-69-7, Lobeline 757-58-4, Ethyl tetraphosphate 7447-40-7, Potassium chloride (effect on curare action on central nervous

L53 ANSWER 24 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 1945:19509 HCAPLUS Full-text

DOCUMENT NUMBER: 39:19509

ORIGINAL REFERENCE NO.: 39:3072i,3073a-b

TITLE: Influence of analeptics on respiration in KCN

poisoning

AUTHOR(S): Shvarsalon, N. S.

Farmakologiya i Toksikologiya (Moscow) ( SOURCE:

**1944**), 7(No. 3), 29-39

CODEN: FATOAO; ISSN: 0014-8318

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

After intravenous injections of KCN in dogs the use of stimulants for the central nervous system during cessation of respiration is contraindicated. In the period of deep, infrequent respiration lobeline and cytitone stimulate respiration, but since they are cardiac depressants their doses must be small. Cytitone (dose 0.1 ml./kg. equivalent to 0.015 mg. cytisine per kg.) is preferable because of lower cardiac activity. Large intravenous doses of adrenaline are beneficial to test animals in KCN poisoning; ephedrine is less effective. Sympatol sometimes stimulates respiration. Like adrenalone, its effect is variable and adrenaline is preferable. Cordiamine and spiramine are ineffective unless the test animal is already in a coma. In the stage of

rapid, shallow breathing respiratory stimulants are superfluous. Respiration charts are shown, and some tests with metrazole are reported.

IT 90-69-7, Lobeline

(effect on respiration in KCN poisoning)

RN 90-69-7 HCAPLUS

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

CC 11H (Biological Chemistry: Pharmacology)

IT 51-43-4, Adrenaline 54-95-5, Metrazole 90-69-7,

Lobeline 299-42-3, Ephedrine

(effect on respiration in KCN poisoning)

L53 ANSWER 25 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1932:12172 HCAPLUS Full-text

DOCUMENT NUMBER: 26:12172

ORIGINAL REFERENCE NO.: 26:1341i,1342a

TITLE: The effect of some substances which stimulate

the central nervous

system upon respiration and

circulation

AUTHOR(S): Gremels, Hans

SOURCE: Archiv fuer Experimentelle Pathologie und

Pharmakologie (1931), 162, 29-45

CODEN: AEXPBL; ISSN: 0365-2041

DOCUMENT TYPE: LANGUAGE: Journal Unavailable

AB cf. C. A. 25, 346. Cardiazole, coramine, hexetone and lobeline have a therapeutic effect in cardiac insufficiency because of morphine poisoning. They act by stimulating the respiratory center, the depression of which is the chief action of the morphine.

IT 90-69-7, Lobeline

(effect on cardiac insufficiency due to morphine poisoning)

RN 90-69-7 HCAPLUS

CN Ethanone, 2-[(2R,6S)-6-[(2S)-2-hydroxy-2-phenylethyl]-1-methyl-2-piperidinyl]-1-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

CC 11H (Biological Chemistry: Pharmacology)

IT Circulation

(effect of substances which stimulate central
nervous system on)

IT Respiration

(of eel, effect of substances which stimulate central nervous system on)

IT Nervous system

(substances stimulating central, effect on respiration and circulation)

54-95-5, Metrazole **90-69-7**, Lobeline IT 28587-71-5,

(effect on cardiac insufficiency due to morphine poisoning)